

# **AUTOMATIC STATIONS**



**GENERAL ELECTRIC**



STATIONERY  
NOTES



GENERAL ELECTRIC



MAY 28 '27

# AUTOMATIC STATIONS

*To January 1, 1927*



GENERAL ELECTRIC COMPANY  
SCHENECTADY, N. Y.

March, 1927

Bulletin GEA-90B

*Supersedes GEA-90A*



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# AUTOMATIC STATION INSTALLATIONS

TO JANUARY 1, 1927

The wide application of automatic station equipment is conclusively demonstrated by even a casual examination of the list of General Electric installations contained in this bulletin. Whatever your individual problem may be, expert engineers, who are conversant with every phase of automatic operation, are at your service.

Standard equipments are now available for each class of service to which this method of control has been applied.

The extensive use of automatic switching equipment in the various classes of service has brought out certain features which have largely contributed to its success from the standpoint of both economy and engineering. These features may be summarized as follows:

1. No operators required—reduces maintenance expense.
2. Stations operate only as needed—saving in power.
3. Rapidity of reconnection to load—service improvement.
4. Reliability.
5. Constant protection.
6. Complete operation by remote control.
7. Possibility of better economic spacing of substations.
8. Saving in feeder copper.
9. Possibility of developing small water-power sites.

## EQUIPMENTS AND INSTALLATIONS

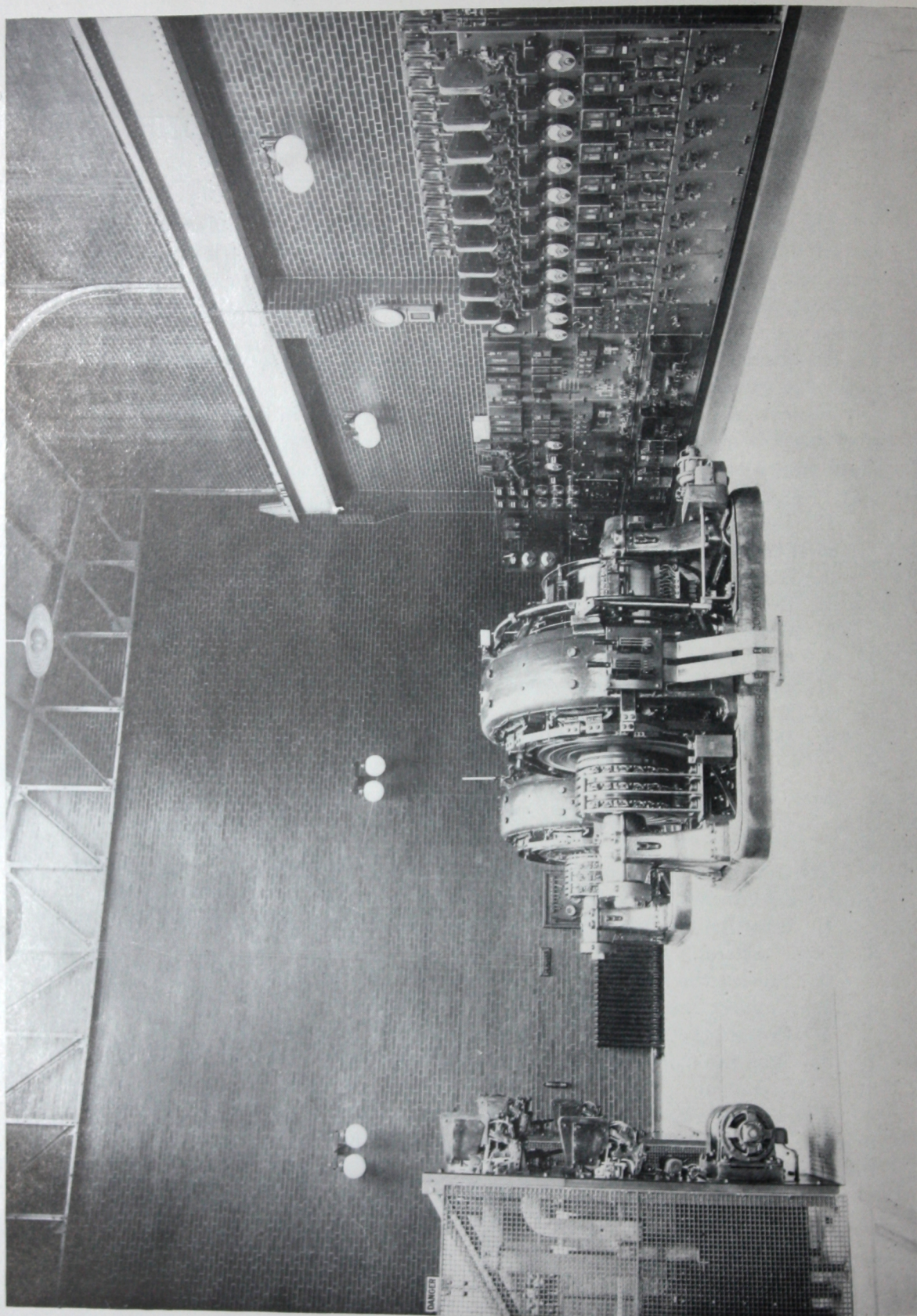
The function of the automatic station is to perform the following duties which would ordinarily be taken care of by the operator in a manual station.

1. Start the machines when the demand arises, or at the direction of remote control.
2. Protect the machines against injury during starting.
3. Connect the machines to the substation bus.
4. Protect the machines against injury while running.
5. Stop the machines when the demand ceases, or at the direction of remote control.

The various classes of equipments built by the General Electric Company, together with a page reference to the list of installations, are given in the table on the opposite page.

10 90-B6621 TCF





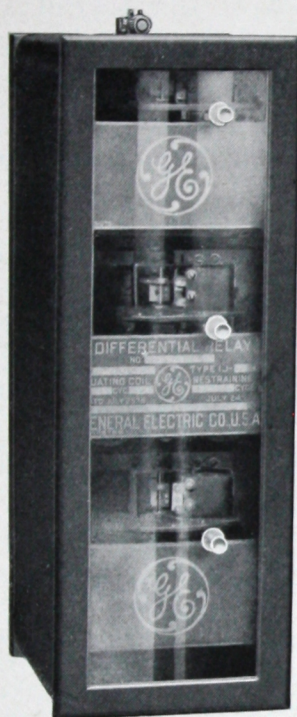
Automatic Switching Equipment, Boston Elevated Rwy., Boston, Mass., Oak Square Substation.  
Controlling Two 2000-kw. Synchronous Converters and Nine D-C. Reclosing Feeders



## AUTOMATIC STATIONS

### PROTECTIVE FEATURES

Automatic switching equipment provides protection against abnormal conditions at all times and prevents abuse of the apparatus. For example, an automatic equipment will not place a synchronous converter on the line if its polarity is wrong. Similarly, machines cannot be connected to the line unless their terminal pressures and other details are correct. Standard automatic switching equipments have the protective features listed below.



Phase Balance Relay



Motor-operated Time Relay

| Protection  | SYNCHRONOUS CONVERTERS |          |            | MOTOR-GENERATOR |          |            | Water-wheel Generators | Synchronous Condenser |
|---|------------------------|----------|------------|-----------------|----------|------------|------------------------|-----------------------|
|   | Railway                | Lighting | Industrial | Railway         | Lighting | Industrial |                        |                       |
| A-c. overvoltage.....   | .....                  | .....    | .....      | .....           | .....    | .....      | X                      | X                     |
| A-c. undervoltage.....  | X                      | X        | X          | X               | X        | X          | .....                  | X                     |
| Severe a-c. overcurrent.....                                      | X                      | X        | X          | X               | X        | X          | X                      | X                     |
| Single-phase starting.....  | X                      | X        | X          | X               | X        | .....      | .....                  | X                     |
| Excessive temperature due to sustained, moderate overcurrent..... | X                      | X        | X          | X               | X        | X          | X                      | X                     |
| Excessive temperature due to single-phase operation               | X                      | X        | X          | X               | X        | X          | X                      | X                     |
| Imperfect start.....  | X                      | X        | X          | X               | X        | X          | X                      | X                     |
| Loss of field a-c. machine.....                                   | X                      | X        | X          | X               | X        | X          | X                      | X                     |
| Loss of field d-c. machine.....                                   | X                      | X        | X          | X               | X        | X          | .....                  | .....                 |
| Reversed-phase rotation.....                                      | X                      | X        | .....      | X               | X        | .....      | .....                  | .....                 |
| D-c. overcurrent.....   | X                      | X        | X          | X               | X        | X          | .....                  | .....                 |
| Incorrect polarity.....   | X                      | X        | X          | X               | X        | X          | .....                  | .....                 |
| Overheating of neutral copper.....                                | .....                  | X        | .....      | .....           | X        | .....      | .....                  | .....                 |
| D-c. reverse power.....   | X                      | .....    | X          | X               | X        | X          | .....                  | .....                 |
| D-c. grounding.....   | X                      | X        | .....      | .....           | .....    | .....      | .....                  | .....                 |
| Overheating of load-limiting resistor.....                        | X                      | X        | .....      | X               | .....    | .....      | .....                  | .....                 |
| Exciter overvoltage.....  | .....                  | .....    | .....      | .....           | .....    | .....      | X                      | .....                 |
| Excessive bearing temperature.....                                | X                      | X        | X          | X               | X        | X          | X                      | X                     |
| Machine overspeeding.....   | X                      | X        | X          | X               | X        | X          | X                      | X                     |
| Phase unbalance.....  | X                      | .....    | .....      | X               | .....    | .....      | .....                  | .....                 |



## GENERAL ELECTRIC

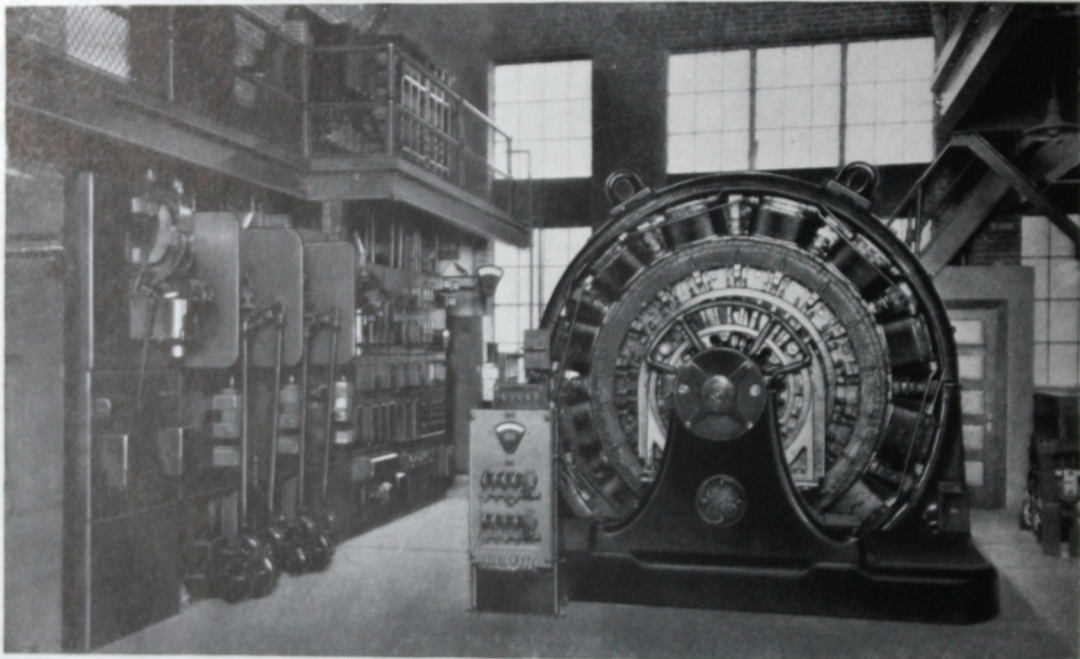
### SYNCHRONOUS CONVERTERS FOR RAILWAY SERVICE

Because of the varied service requirements these equipments may be supplied with a manual- or motor-operated main oil circuit breaker as desired.

The load responsive scheme is the starting method most generally used, since it meets satisfactorily the average requirements. Time switch, supervisory, or other remote control methods can also be furnished. Remote control is especially adaptable where the operation of the substations is under the direction of a load dispatcher.

Special features may be required, such as double-unit equipments or partial automatic operation.

With partial automatic operation and manual starting, automatic running protection is provided and shutting down is accomplished at the end of the load demand, by means of a time switch, or by remote control. Any service condition can be met and recommendations will gladly be supplied.



Automatic Railway Substation, New York Central Railroad, Scarsdale,  
Controlling 2500-kw., 666-volt Synchronous Converter

| Company                               | Address              | Station             | Apparatus    | Kw.<br>Capacity<br>(Each) | VOLTAGE     |          |
|---------------------------------------|----------------------|---------------------|--------------|---------------------------|-------------|----------|
|                                       |                      |                     |              |                           | Incoming    | Outgoing |
| Adirondack Power & Light Corp.        | Schenectady, N. Y.   | Little Falls, N. Y. | 1 Syn. Conv. | 300                       | 17,300      | 600      |
| Androscoggin & Kennebec Ry. Co.       | Lewiston, Me.        | Sabattus            | 1 Syn. Conv. | 200                       | 33,300      | 650      |
| "                                     | "                    | Day's Corner        | 1 Syn. Conv. | 200                       | 19,100      | 600      |
| Arkansas Central Power Co.            | Little Rock, Ark.    | No. 2 Heights       | 1 Syn. Conv. | 500                       | 13,200      | 600      |
| Aurora, Elgin & Chicago R.R.          | Aurora, Ill.         | Batavia             | 1 Syn. Conv. | 300                       | 33,300      | 600      |
| "                                     | "                    | St. Charles         | 1 Syn. Conv. | 300                       | 33,300      | 600      |
| Benton Harbor-St. Joe Ry. & Light Co. | Benton Harbor, Mich. | Portable Unit       | 1 Syn. Conv. | 50                        | 13,200      | 600      |
| Birmingham Electric Co.               | Ensley, Ala.         | Owenton             | 1 Syn. Conv. | 1000                      | 13,200      | 600      |
| Boston Elevated Rwy.                  | Boston, Mass.        | Oak Square          | 2 Syn. Conv. | 2000                      | 6600/13,200 | 600      |
| "                                     | "                    | Harrison            | 1 Syn. Conv. | 3000                      | 13,200      | 600      |
| Butte Electric Railway Co.            | Butte, Mont.         | South Butte         | 1 Syn. Conv. | 500                       | 13,200      | 600      |



# AUTOMATIC STATIONS

| Company                                    | Address                   | Station                      | Apparatus    | Kw.<br>Capacity<br>(Each) | VOLTAGE  |          |
|--|---------------------------|------------------------------|--------------|---------------------------|----------|----------|
|  |                           |                              |              |                           | Incoming | Outgoing |
| Chester County Light & Power Co....        | Kennet Square, Pa. ....   | .....                        | 1 Syn. Conv. | 200                       | 11,000   | 600      |
| Chicago & Interurban Traction Co....       | Chicago, Ill. ....        | Monee .....                  | 1 Syn. Conv. | 500                       | 33,000   | 600      |
| “  | “                         | Manteno .....                | 1 Syn. Conv. | 300                       | 33,000   | 600      |
| Chicago & Joliet Electric Railway Co..     | Joliet, Ill. ....         | .....                        | 1 Syn. Conv. | 500                       | 12,000   | 600      |
| “  | “                         | .....                        | 1 Syn. Conv. | 750                       | 12,000   | 600      |
| Chicago, Aurora & Elgin R.R. Co....        | Aurora, Ill. ....         | Warrenville .....            | 1 Syn. Conv. | 500                       | 26,400   | 600      |
| “  | “                         | Bellewood .....              | 1 Syn. Conv. | 1000                      | 26 400   | 600      |
| “  | “                         | Wheaton .....                | 1 Syn. Conv. | 1000                      | 26 400   | 600      |
| Chicago, N. S. & Milwaukee R. R....        | Highwood, Ill. ....       | Winthrop Harbor .....        | 1 Syn. Conv. | 1200                      | 33,000   | 600      |
| “  | “                         | Lake Bluff, Ill. ....        | 1 Syn. Conv. | 1000                      | 33,000   | 600      |
| “  | “                         | Ravina Park, Ill. ....       | 1 Syn. Conv. | 1000                      | 33,000   | 600      |
| “  | “                         | Beach, Ill. ....             | 1 Syn. Conv. | 1000                      | 33,000   | 600      |
| “  | “                         | Libertyville, Ill. ....      | 1 Syn. Conv. | 300                       | 33,000   | 600      |
| “  | “                         | 4-mile Road, Wis. ....       | 1 Syn. Conv. | 500                       | 33,000   | 600      |
| “  | “                         | College Ave., Wis. ....      | 1 Syn. Conv. | 500                       | 33,000   | 600      |
| “  | “                         | Winnetka, Ill. ....          | 1 Syn. Conv. | 1500                      | 33,000   | 600      |
| “  | “                         | Carrollville, Ill. ....      | 2 Syn. Conv. | 500                       | 33,000   | 600      |
| “  | “                         | Kenosha, Wis. ....           | 1 Syn. Conv. | 1000                      | 33,000   | 600      |
| “  | “                         | .....                        | 1 Syn. Conv. | 1500                      | 33,000   | 600      |
| “  | “                         | .....                        | 1 Syn. Conv. | 1500                      | 33,000   | 600      |
| “  | “                         | .....                        | 1 Syn. Conv. | 1500                      | 33,000   | 600      |
| Chicago Rapid Transit Co. ....             | Chicago, Ill. ....        | Central St. ....             | 1 Syn. Conv. | 2000                      | 33,000   | 600      |
| Christchurch Tramway Board .....           | Christchurch, New Zealand | Fendalton .....              | 2 Syn. Conv. | 300                       | 11,000   | 600      |
| “  | “                         | Cashmere Hills .....         | 1 Syn. Conv. | 500                       | 11,000   | 600      |
| Cincinnati, Georgetown & Portsmouth R.R.   | Cincinnati, Ohio. ....    | Lake Allyn .....             | 1 Syn. Conv. | 300                       | 13,200   | 600      |
| “  | “                         | Mt. Washington .....         | 1 Syn. Conv. | 300                       | 13,200   | 600      |
| “  | “                         | Bethel .....                 | 1 Syn. Conv. | 300                       | 13,200   | 600      |
| “  | “                         | Georgetown .....             | 1 Syn. Conv. | 300                       | 13,200   | 600      |
| Cin., Lawrenceburg & Aurora Elec. St. R.R. | “                         | Fernbank .....               | 1 Syn. Conv. | 200                       | 33,000   | 600      |
| “  | “                         | State Line .....             | 1 Syn. Conv. | 200                       | 33,000   | 600      |
| City of Boston .....                       | Boston, Mass. ....        | Harrison .....               | 1 Syn. Conv. | 3000                      | 13,200   | 600      |
| Cleveland, Southwestern Rwy. & Lt. Co.     | Cleveland, Ohio. ....     | Penfield .....               | 1 Syn. Conv. | 325                       | 27,000   | 650      |
| “  | “                         | Chippewa .....               | 1 Syn. Conv. | 325                       | 22,000   | 650      |
| “  | “                         | Madisonburg .....            | 1 Syn. Conv. | 325                       | 22,000   | 650      |
| “  | “                         | Leroy .....                  | 1 Syn. Conv. | 325                       | 22,000   | 650      |
| “  | “                         | West Salem .....             | 1 Syn. Conv. | 325                       | 22,000   | 650      |
| “  | “                         | Nankin .....                 | 1 Syn. Conv. | 325                       | 22,000   | 650      |
| “  | “                         | Chestnut .....               | 1 Syn. Conv. | 325                       | 22,000   | 650      |
| “  | “                         | Pittsfield .....             | 1 Syn. Conv. | 325                       | 22,000   | 650      |
| “  | “                         | Harters .....                | 1 Syn. Conv. | 325                       | 22,000   | 650      |
| “  | “                         | Mabees .....                 | 1 Syn. Conv. | 325                       | 22,000   | 650      |
| “  | “                         | Rockport .....               | 1 Syn. Conv. | 500                       | 22,000   | 650      |
| Columbus Ry. Power & Light Co. ....        | Columbus, Ohio. ....      | Marion Road .....            | 1 Syn. Conv. | 1000                      | 13,200   | 600      |
| “  | “                         | Haig Ave. ....               | 1 Syn. Conv. | 500                       | 13,200   | 600      |
| “  | “                         | Mound & Dana Sts. ....       | 2 Syn. Conv. | 500                       | 13,200   | 600      |
| “  | “                         | North Car Barn .....         | 2 Syn. Conv. | 500                       | 13,200   | 600      |
| Conestoga Traction Co. ....                | Lancaster, Pa. ....       | Parkesburg .....             | 1 Syn. Conv. | 500                       | 11,000   | 600      |
| “  | “                         | Rheems .....                 | 1 Syn. Conv. | 300                       | 11,500   | 600      |
| “  | “                         | Salungh .....                | 1 Syn. Conv. | 300                       | 11,500   | 600      |
| “  | “                         | Brownstown .....             | 1 Syn. Conv. | 300                       | 11,500   | 600      |
| Consumers Power Co. ....                   | Jackson, Mich. ....       | 15th St. ....                | 1 Syn. Conv. | 1000                      | 22,000   | 600      |
| “  | Atlas, Mich. ....         | Atlas .....                  | 1 Syn. Conv. | 1000                      | 22,000   | 650      |
| Dayton & Troy Electric Ry. Co. ....        | Dayton, Ohio. ....        | Ebenezer .....               | 2 Syn. Conv. | 300                       | 6,600    | 600      |
| Dayton & Western Traction Co. ....         | “                         | No. 8 .....                  | 1 Syn. Conv. | 500                       | 33,000   | 600      |
| “  | “                         | Ohio Viaduct .....           | 1 Syn. Conv. | 500                       | 33,000   | 600      |
| “  | “                         | New Westville Junction ..... | 1 Syn. Conv. | 500                       | 33,000   | 600      |
| Denver Tramway Co. ....                    | Denver, Colo. ....        | Corona St. ....              | 1 Syn. Conv. | 500                       | 13,200   | 600      |
| “  | “                         | East Division .....          | 1 Syn. Conv. | 500                       | 13,200   | 600      |
| Des Moines City Ry. Co. ....               | Des Moines, Iowa. ....    | E. 2nd & Walnut Sts. ....    | 2 Syn. Conv. | 500                       | 4500     | 600      |
| “  | “                         | 12th & High Sts. ....        | 2 Syn. Conv. | 500                       | 4500     | 600      |
| “  | “                         | East 14th St. ....           | 1 Syn. Conv. | 500                       | 4500     | 600      |
| “  | “                         | Ft. Des Moines .....         | 1 Syn. Conv. | 500                       | 4500     | 600      |
| “  | “                         | 15th & Clark Sts. ....       | 1 Syn. Conv. | 500                       | 4500     | 600      |
| “  | “                         | Polk Blvd. ....              | 1 Syn. Conv. | 500                       | 4500     | 600      |
| “  | “                         | Portable Unit .....          | 1 Syn. Conv. | 500                       | 4500     | 600      |
| Duluth Street Ry. Co. ....                 | Duluth, Minn. ....        | 92 Ave. West .....           | 1 Syn. Conv. | 1000                      | 13,200   | 600      |
| “  | “                         | 34 Ave. East .....           | 1 Syn. Conv. | 500                       | 13,200   | 600      |



# GENERAL ELECTRIC

| Company                                | Address                   | Station               | Apparatus       | Kw.<br>Capacity<br>(Each) | VOLTAGE  |          |
|--|---------------------------|-----------------------|-----------------|---------------------------|----------|----------|
|  |                           |                       |                 |                           | Incoming | Outgoing |
| Eastern New York Utilities.....        | Rensselaer, N. Y.....     |                       | 2 Syn. Conv.    | 500                       | 33,000   | 600      |
| Elgin & Belvidere Electric Co.....     | Chicago, Ill.....         | Union, Ill.....       | 1 Syn. Conv.    | 300                       | 26,400   | 600      |
| "                                      | "                         | Gilberts, Ill.....    | 1 Syn. Conv.    | 300                       | 26,400   | 600      |
| "                                      | "                         | Garden Prairie.....   | 1 Syn. Conv.    | 300                       | 26,400   | 600      |
| Ponda, Johnstown & Gloversville R.R.   | Amsterdam, N. Y.....      | Glennville.....       | 2 Syn. Conv.    | 300                       | 13,200   | 600      |
| Gary Railways Company.....             | Gary, Indiana.....        |                       | 1 Syn. Conv.    | 1000                      | 33,000   | 600      |
| Georgia Railway & Power Co.....        | Atlanta, Georgia.....     | Decatur.....          | 1 Syn. Conv.    | 500                       | 19,000   | 600      |
| "                                      | "                         |                       | 1 Bat. Chg. Set | 1 1/4                     | 110      | 125      |
| Grand Rapids, G. H. & Muskegon Ry. Co. | Grand Rapids, Mich.....   | Spring Lake.....      | 1 Syn. Conv.    | 500                       | 17,500   | 600      |
| "                                      | Fruitport, Mich.....      | Coopersville.....     | 1 Syn. Conv.    | 300                       | 17,500   | 600      |
| "                                      | "                         | Walker.....           | 1 Syn. Conv.    | 300                       | 16,500   | 600      |
| Hansheim Express Electric Ry.....      | Japan.....                | Kanzakigawa.....      | 1 Syn. Conv.    | 1000                      | 22,000   | 600      |
| Hartford Electric Light Co.....        | Hartford, Conn.....       | Parkville.....        | 1 Syn. Conv.    | 1000                      | 11,000   | 600      |
| "                                      | "                         |                       | 1 Syn. Conv.    | 1000                      | 11,200   | 600      |
| Havana Elec. Ry. Lt. & Power Co.....   | Havana, Cuba.....         | Paincipe.....         | 1 Syn. Conv.    | 1000                      | 13,200   | 575      |
| "                                      | "                         | Toyo.....             | 1 Syn. Conv.    | 1000                      | 13,200   | 575      |
| Hershey Cuban Ry. Co.....              | "                         | Margot, Cuba.....     | 2 Syn. Conv.    | 500                       | 33,000   | 1200     |
| "                                      | "                         | Liza, Cuba.....       | 2 Syn. Conv.    | 500                       | 33,000   | 1200     |
| Hershey Transit Co.....                | Hershey, Pa.....          | Elizabethtown.....    | 1 Syn. Conv.    | 300                       | 22,000   | 600      |
| Houston North Shore Ry. Co.....        | Houston, Texas.....       |                       | 2 Syn. Conv.    | 300                       | 33,000   | 600      |
| Illinois Power and Light Corp.....     | Chicago, Ill.....         | Solomon.....          | 1 Syn. Conv.    | 500                       | 33,000   | 600      |
| "                                      | "                         | Loveless Siding.....  | 1 Syn. Conv.    | 500                       | 33,000   | 600      |
| "                                      | "                         | Moody Siding.....     | 1 Syn. Conv.    | 500                       | 33,000   | 600      |
| "                                      | "                         | Bell Siding.....      | 1 Syn. Conv.    | 1050                      | 33,000   | 650      |
| "                                      | "                         | Cornstalk Siding..... | 1 Syn. Conv.    | 1050                      | 33,000   | 650      |
| "                                      | "                         | Worden, Ill.....      | 1 Syn. Conv.    | 1050                      | 33,000   | 650      |
| "                                      | "                         | Sulphur Siding.....   | 1 Syn. Conv.    | 1050                      | 33,000   | 650      |
| "                                      | LaSalle, Ill.....         |                       | 1 Syn. Conv.    | 300                       | 33,000   | 600      |
| Indianapolis & Louisville Traction Co. | Scottsburg, Ind.....      | Scottsburg, Ind.....  | 1 Syn. Conv.    | 500                       | 33,000   | 600      |
| Interurban Ry. Co.....                 | Des Moines, Iowa.....     | Beaver Valley.....    | 1 Syn. Conv.    | 750                       | 22,500   | 600      |
| "                                      | "                         | Granger, Iowa.....    | 1 Syn. Conv.    | 300                       | 22,500   | 600      |
| "                                      | "                         | Freight Line.....     | 1 Syn. Conv.    | 500                       | 22,500   | 600      |
| "                                      | "                         | Brennan, Iowa.....    | 1 Syn. Conv.    | 300                       | 22,500   | 600      |
| "                                      | "                         | Hyperion, Iowa.....   | 1 Syn. Conv.    | 300                       | 22,500   | 600      |
| "                                      | "                         | Moran, Iowa.....      | 1 Syn. Conv.    | 500                       | 22,500   | 600      |
| Iowa Ry. & Light Co.....               | Cedar Rapids, Iowa.....   | Prairie Creek.....    | 1 Syn. Conv.    | 500                       | 33,000   | 600      |
| "                                      | "                         | Burge.....            | 1 Syn. Conv.    | 300                       | 33,000   | 600      |
| "                                      | "                         | Iowa City.....        | 1 Syn. Conv.    | 500                       | 33,000   | 600      |
| Kansas City Rys. Co.....               | Kansas City, Mo.....      | Portable Unit.....    | 1 Syn. Conv.    | 500                       | 13,200   | 600      |
| "                                      | "                         | Blue Ave.....         | 1 Syn. Conv.    | 1000                      | 6600     | 575      |
| Lake Shore & Elec. Ry. Co.....         | Fremont, Ohio.....        |                       | 4 Syn. Conv.    | 500                       | 33,000   | 600      |
| Lake Shore Power Co.....               | Vulcan, Ohio.....         |                       | 2 Syn. Conv.    | 300                       | 13,200   | 600      |
| Los Angeles Ry. Corp.....              | Los Angeles, Cal.....     | West Adams.....       | 1 Syn. Conv.    | 1000                      | 16,500   | 600      |
| "                                      | "                         | Melrose.....          | 2 Syn. Conv.    | 1500                      | 16,500   | 600      |
| "                                      | "                         | Garavanza.....        | 1 Syn. Conv.    | 1000                      | 16,500   | 600      |
| "                                      | "                         | W. 54th St.....       | 1 Syn. Conv.    | 1000                      | 17,000   | 600      |
| "                                      | "                         | Division No. 1.....   | 1 Syn. Conv.    | 1500                      | 16,500   | 600      |
| Melbourne & Metropolitan Tramway..     | Melbourne, Australia..... | Ascot Vale.....       | 1 Syn. Conv.    | 500                       | 6600     | 600      |
| "                                      | "                         | Carlton.....          | 1 Syn. Conv.    | 500                       | 6600     | 600      |
| "                                      | "                         | South Melbourne.....  | 1 Syn. Conv.    | 500                       | 6600     | 600      |
| "                                      | "                         | St. Kilda.....        | 2 Syn. Conv.    | 1000                      | 6600     | 600      |
| "                                      | "                         | West Richmond.....    | 2 Syn. Conv.    | 500                       | 6600     | 600      |
| Michigan Copper & Brass Co.....        | Detroit, Mich.....        |                       | 3 Syn. Conv.    | 1000                      | 6600     | 600      |
| Municipio de Bogato.....               | Bogata, Colombia.....     |                       | 1 Syn. Conv.    | 700                       | 4600     | 600      |
| "                                      | "                         |                       | 1 Syn. Conv.    | 300                       | 6600     | 600      |
| Nashville Rwy. & Lt. Co.....           | Nashville, Tenn.....      | Wedgewood.....        | 1 Syn. Conv.    | 500                       | 13,000   | 600      |
| New South Wales Gov't Rys.....         | Sydney, Australia.....    | Narrabeen.....        | 1 Syn. Conv.    | 450                       | 6600     | 600      |
| "                                      | "                         | Abbotsford.....       | 1 Syn. Conv.    | 450                       | 6600     | 600      |
| "                                      | "                         | Mosman.....           | 1 Syn. Conv.    | 450                       | 6600     | 600      |
| "                                      | Newcastle, Australia..... | Hunter St.....        | 2 Syn. Conv.    | 1000                      | 11,000   | 600      |
| "                                      | Sydney, Australia.....    | Ride Sub.....         | 1 Syn. Conv.    | 450                       | 6600     | 600      |
| "                                      | "                         |                       | 1 Syn. Conv.    | 200                       | 6600     | 600      |



# AUTOMATIC STATIONS

| Company                                  | Address                  | Station                | Apparatus    | Kw.<br>Capacity<br>(Each) | VOLTAGE  |          |
|--|--------------------------|------------------------|--------------|---------------------------|----------|----------|
|  |                          |                        |              |                           | Incoming | Outgoing |
| New York Central R.R. Co.....            | New York, N. Y.....      | Scarsdale, No. 8A..... | 1 Syn. Conv. | 2500                      | 11,000   | 666      |
| “  | “                        | Harmon.....            | 2 Syn. Conv. | 2500                      | 11,000   | 666      |
| “  | “                        | Hastings.....          | 1 Syn. Conv. | 2500                      | 11,000   | 666      |
| “  | “                        | Phillips Manor.....    | 1 Syn. Conv. | 2500                      | 11,000   | 666      |
| New York State Rys.....                  | Syracuse, N. Y.....      | Williamson, N. Y.....  | 1 Syn. Conv. | 250                       | 11,000   | 600      |
| “  | “                        | Minoa.....             | 1 Syn. Conv. | 300                       | 60,000   | 600      |
| “  | “                        | Canastota, N. Y.....   | 1 Syn. Conv. | 300                       | 6600     | 600      |
| Niagara, St. Cath. & Toronto R.R. Co.    | St. Catherines, Ont..... | Niagara-on-Lake.....   | 1 Syn. Conv. | 500                       | 12,500   | 600      |
| Northern Ohio Traction & Light Co..      | Akron, Ohio.....         | Midvale, Ohio.....     | 1 Syn. Conv. | 500                       | 2200     | 600      |
| “  | “                        | Beach City, Ohio.....  | 1 Syn. Conv. | 500                       | 2200     | 600      |
| Oklahoma Union Ry. Co.....               | Tulsa, Okla.....         | .....                  | 1 Syn. Conv. | 300                       | 6600     | 600      |
| Omaha & Council Bluffs Street Ry...      | Omaha, Neb.....          | Council Bluffs.....    | 1 Syn. Conv. | 1000                      | 13,200   | 600      |
| Oregon Electric Ry. Co.....              | Portland, Ore.....       | Moffatt, Ore.....      | 2 Syn. Conv. | 500                       | 60,000   | 1300     |
| “  | “                        | Tonquin, Ore.....      | 2 Syn. Conv. | 500                       | 60,000   | 1300     |
| “  | “                        | Pirtle, Ore.....       | 1 Syn. Conv. | 500                       | 60,000   | 1300     |
| “  | “                        | Lasen, Ore.....        | 1 Syn. Conv. | 500                       | 60,000   | 1300     |
| “  | “                        | Wacanda, Ore.....      | 1 Syn. Conv. | 500                       | 60,000   | 1300     |
| “  | “                        | Cartney, Ore.....      | 1 Syn. Conv. | 500                       | 60,000   | 1300     |
| “  | “                        | Orville, Ore.....      | 1 Syn. Conv. | 500                       | 60,000   | 1300     |
| Pacific Electric Ry. Co.....             | Los Angeles, Cal.....    | Van Nuys.....          | 1 Syn. Conv. | 750                       | 16,500   | 600      |
| “  | “                        | Hermosa.....           | 1 Syn. Conv. | 1000                      | 16,500   | 600      |
| “  | “                        | Maple Ave.....         | 1 Syn. Conv. | 1500                      | 16,500   | 600      |
| “  | “                        | Slausson Junction..... | 1 Syn. Conv. | 1000                      | 15,000   | 600      |
| “  | “                        | Hollywood.....         | 1 Syn. Conv. | 1500                      | 16,500   | 600      |
| “  | “                        | .....                  | 1 Syn. Conv. | 1000                      | 16,500   | 600      |
| Perth Tramways.....                      | Australia.....           | Perth.....             | 2 Syn. Conv. | 300                       | 20,000   | 600      |
| Philadelphia & Garrettford St. Rwy. Co.  | Llanerch, Pa.....        | .....                  | 1 Syn. Conv. | 500                       | 13,200   | 600      |
| Philadelphia Rapid Transit Co.....       | Philadelphia, Pa.....    | .....                  | 1 Syn. Conv. | 2000                      | .....    | 600      |
| Phoenix Utility Co.....                  | Miami Beach, Fla.....    | .....                  | 2 Syn. Conv. | 750                       | 13,800   | 600      |
| Potomac Electric Power Co.....           | Washington, D. C.....    | Anacostia, D. C.....   | 1 Syn. Conv. | 500                       | 13,200   | 600      |
| Public Lighting Comm. City of Detroit.   | Detroit, Mich.....       | No. 3.....             | 1 Syn. Conv. | 2000                      | 24,000   | 600      |
| “  | “                        | No. 4.....             | 1 Syn. Conv. | 2000                      | 24,000   | 600      |
| “  | “                        | No. 5.....             | 1 Syn. Conv. | 1000                      | 24,000   | 600      |
| “  | “                        | No. 7.....             | 1 Syn. Conv. | 2000                      | 24,000   | 600      |
| “  | “                        | No. 8.....             | 1 Syn. Conv. | 2000                      | 24,000   | 600      |
| “  | “                        | No. 10.....            | 1 Syn. Conv. | 2000                      | 24,000   | 600      |
| “  | “                        | No. 13.....            | 1 Syn. Conv. | 2000                      | 24,000   | 600      |
| “  | “                        | No. 14.....            | 1 Syn. Conv. | 2000                      | 24,000   | 600      |
| “  | “                        | No. 17.....            | 1 Syn. Conv. | 2000                      | 24,000   | 600      |
| “  | “                        | No. 18.....            | 1 Syn. Conv. | 2000                      | 24,000   | 600      |
| “  | “                        | No. 20.....            | 1 Syn. Conv. | 2000                      | 24,000   | 600      |
| “  | “                        | No. 24.....            | 1 Syn. Conv. | 1000                      | 24,000   | 600      |
| “  | “                        | No. 30.....            | 1 Syn. Conv. | 1000                      | 24,000   | 600      |
| “  | “                        | No. 31.....            | 1 Syn. Conv. | 1000                      | 24,000   | 600      |
| Public Service Elec. & Gas Co.....       | Newark, N. J.....        | Portable Unit.....     | 1 Syn. Conv. | 500                       | 13,200   | 600      |
| “  | “                        | Bloomfield.....        | 1 Syn. Conv. | 1000                      | 13,200   | 600      |
| Public Service Co. of Northern Illinois. | Chicago, Ill.....        | Bellwood.....          | 1 Syn. Conv. | 1500                      | 34,650   | 600      |
| “  | “                        | Westmore.....          | 1 Syn. Conv. | 1500                      | 34,650   | 600      |
| “  | “                        | Glen Ellyn.....        | 1 Syn. Conv. | 1500                      | 34,650   | 600      |
| “  | “                        | .....                  | 1 Syn. Conv. | 1500                      | 34,650   | 600      |
| “  | “                        | Aurora.....            | 1 Syn. Conv. | 1500                      | 34,650   | 600      |
| Roanoke Ry. & Electric Co.....           | Roanoke, Va.....         | .....                  | 1 Syn. Conv. | 300                       | 13,200   | 600      |
| Sacramento Northern R.R. Co.....         | Sacramento, Cal.....     | Chico.....             | 1 Syn. Conv. | 300                       | 2300     | 600      |
| “  | “                        | Portable Unit.....     | 1 Syn. Conv. | 300                       | 23,000   | 600      |
| “  | “                        | Chico.....             | 1 Syn. Conv. | 300                       | 2300     | 600      |
| Schenectady Rwy. Co.....                 | Schenectady, N. Y.....   | Ballston Lake.....     | 1 Syn. Conv. | 750                       | 33,000   | 600      |
| Shreveport Ry. Co.....                   | Shreveport, La.....      | No. 1.....             | 1 Syn. Conv. | 500                       | 11,500   | 600      |
| Tampa Electric Co.....                   | Tampa, Fla.....          | 10th St.....           | 1 Syn. Conv. | 750                       | 13,860   | 600      |
| T. C. R. P.....                          | France.....              | .....                  | 2 Syn. Conv. | .....                     | 13,200   | 600      |
| Texas Interurban Ry. Co.....             | Dallas, Texas.....       | .....                  | 3 Syn. Conv. | 300                       | 60,000   | 600      |
| “  | “                        | Lawrence, Texas.....   | 1 Syn. Conv. | 300                       | 23,000   | 600      |
| “  | “                        | Mesquite.....          | 1 Syn. Conv. | 300                       | 23,000   | 600      |
| The Connecticut Co.....                  | New Haven, Conn.....     | North Haven.....       | 2 Syn. Conv. | 200                       | 11,000   | 600      |



# GENERAL ELECTRIC

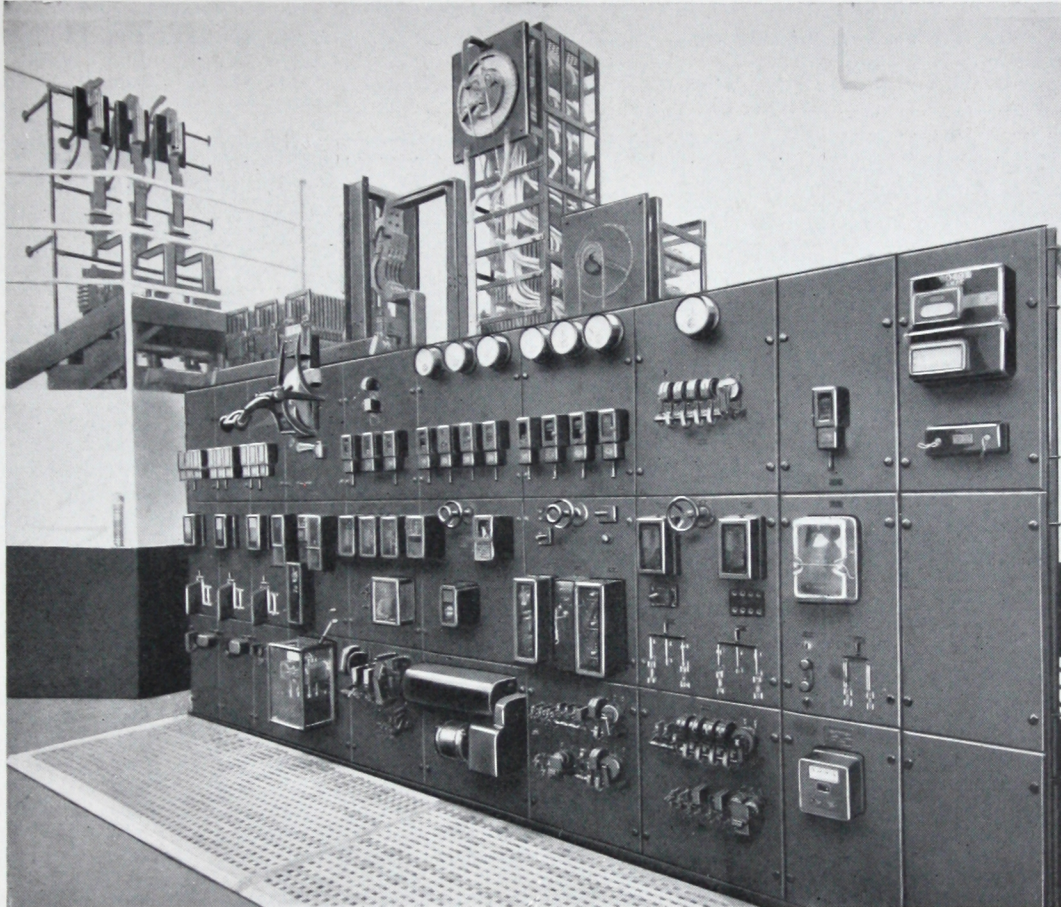
| Company                                      | Address              | Station              | Apparatus    | Kw.<br>Capacity<br>(Each) | VOLTAGE  |          |
|--|----------------------|----------------------|--------------|---------------------------|----------|----------|
|  |                      |                      |              |                           | Incoming | Outgoing |
| The Detroit Edison Co. (Detroit United Rys.) | Detroit, Mich        | Almont, Mich.        | 1 Syn. Conv. | 500                       | 2300     | 650      |
| "  | "                    | Atlas                | 1 Syn. Conv. | 1000                      | 24,000   | 650      |
| "  | "                    | Ortonville           | 1 Syn. Conv. | 1000                      | 24,000   | 650      |
| "  | "                    | Oxford               | 1 Syn. Conv. | 1000                      | 24,000   | 650      |
| "  | "                    | Conger               | 1 Syn. Conv. | 1000                      | 24,000   | 650      |
| "  | "                    | Rochester            | 1 Syn. Conv. | 1000                      | 24,000   | 650      |
| "  | "                    | Ecorse               | 1 Syn. Conv. | 1000                      | 24,000   | 650      |
| "  | "                    | South Rock Wood      | 1 Syn. Conv. | 1000                      | 24,000   | 650      |
| "  | "                    | Monroe               | 1 Syn. Conv. | 1000                      | 24,000   | 650      |
| "  | "                    | Erie                 | 1 Syn. Conv. | 1000                      | 24,000   | 650      |
| "  | "                    | Redford              | 1 Syn. Conv. | 500                       | 24,000   | 650      |
| The Milwaukee Electric Ry. & Light Co.       | Milwaukee, Wis.      | East Troy, Wis.      | 2 Syn. Conv. | 300                       | 13,200   | 1200     |
| Tokio Municipal Ry.                          | Tokio, Japan         | Minowa               | 1 Syn. Conv. | 500                       | 6600     | 600      |
| "  | "                    | Otsuka               | 1 Syn. Conv. | 500                       | 6600     | 600      |
| Toledo Western Rwy. Co.                      | St. Louis, Mo.       | Allen Junction       | 1 Syn. Conv. | 250                       | 13,200   | 600      |
| "  | "                    | Fullers              | 1 Syn. Conv. | 500                       | 23,000   | 600      |
| Toronto Hydro-electric System                | Toronto, Can.        | N. Toronto           | 1 Syn. Conv. | 1000                      | 13,200   | 600      |
| "  | "                    | Sunnyside            | 1 Syn. Conv. | 1000                      | 13,200   | 600      |
| Twin City Rapid Transit Co.                  | Minneapolis, Minn.   | Concord              | 1 Syn. Conv. | 1500                      | 13,200   | 650      |
| United Electric Ry. Co.                      | Providence, R.I.     | Oakland, R.I.        | 2 Syn. Conv. | 300                       | 13,200   | 600      |
| "  | "                    | Harmony, R.I.        | 1 Syn. Conv. | 300                       | 11,000   | 600      |
| United Ry. Co. of St. Louis                  | St. Louis, Mo.       | Park Ave. & 39th St. | 1 Syn. Conv. | 300                       | 13,200   | 600      |
| "  | "                    | Maple Ave.           | 1 Syn. Conv. | 1000                      | 13,200   | 600      |
| "  | "                    | Evans Ave.           | 2 Syn. Conv. | 1000                      | 13,200   | 600      |
| "  | "                    | Arsenal Ave.         | 1 Syn. Conv. | 1000                      | 13,200   | 600      |
| "  | "                    | Clark Ave.           | 1 Syn. Conv. | 2000                      | 13,200   | 600      |
| "  | "                    | Franklin Ave.        | 1 Syn. Conv. | 2000                      | 13,200   | 600      |
| Victorian Ry. Co.                            | Melbourne, Australia | Queensborough        | 1 Syn. Conv. | 1000                      | 20,000   | 1500     |
| "  | "                    | Rosanna              | 1 Syn. Conv. | 1000                      | 20,000   | 1500     |
| "  | "                    | Reservoir            | 2 Syn. Conv. | 1000                      | 20,000   | 1500     |
| "  | "                    | Mitcham              | 2 Syn. Conv. | 1000                      | 20,000   | 1500     |
| "  | "                    | Springvale           | 2 Syn. Conv. | 1000                      | 20,000   | 1500     |
| Wilkesbarre & Hazelton Ry. Co.               | Hazelton, Pa.        | Hazel Park           | 2 Syn. Conv. | 750                       | 11,000   | 600      |
| "  | Wilkesbarre, Pa.     | Georgetown           | 1 Syn. Conv. | 750                       | 22,000   | 600      |
| "  | "                    | Sugar Notch          | 1 Syn. Conv. | 750                       | 22,000   | 600      |
| "  | "                    | Nuangola             | 1 Syn. Conv. | 750                       | 22,000   | 600      |
| "  | "                    | Nesopeck             | 1 Syn. Conv. | 750                       | 22,000   | 600      |
| "  | "                    | Kis Lyn              | 1 Syn. Conv. | 750                       | 22,000   | 600      |
| Wilkesbarre Ry. Co.                          | "                    | Pittston, Pa.        | 1 Syn. Conv. | 500                       | 6600     | 600      |



## AUTOMATIC STATIONS

### MOTOR-GENERATORS FOR RAILWAY SERVICE

The functions and special advantages of automatically operated synchronous converters, as previously described, apply equally well to synchronous motor-generators.



Automatic Switching Equipment in the Pier Substation of the Key System Transit Company,  
Controlling a 600-volt, 1500-kw., Synchronous Motor-generator

| Company                               | Address           | Station          | Apparatus     | Kw.<br>Capacity<br>(Each) | VOLTAGE          |            |
|---------------------------------------|-------------------|------------------|---------------|---------------------------|------------------|------------|
|                                       |                   |                  |               |                           | Incoming         | Outgoing   |
| Andes Copper Mining Co.....           | Chile, S. A.....  |                  | 2 Syn. M-g.   | 500                       | 2300             | 650        |
| Anglo-Chilean Con. Nitrate Corp.....  | Chile, S. A.....  |                  | 4 Syn. M-g.   | 750                       | 33,000           | 1500       |
| Augusta, Aiken Ry. & Electric Co..... | Augusta, Ga.....  | No. 4.....       | 1 Syn. M-g.   | 500                       | 2300             | 600        |
| “                                     | “                 | No. 5.....       | 1 Syn. M-g.   | 300                       | 2300             | 600        |
| Boston Elevated Rwy. Co.....          | Boston, Mass..... | Everett.....     | 2 Freq. Conv. | 1-500<br>1-750            | 13,200<br>13,200 | 600<br>600 |
| Chile Exploration Co.....             |                   |                  | 2 Syn. M-g.   | 500                       | 5000             | 600        |
| Georgia Rwy. & Pr. Co.....            | Atlanta, Ga.....  | Spring St.....   | 1 Syn. M-g.   | 4200                      | 19,000           | 600        |
| Key System Transit Co.....            | Oakland, Cal..... | Pier Substa..... | 1 Syn. M-g.   | 1500                      | 11,000           | 600        |



# GENERAL ELECTRIC

| Company                                  | Address             | Station               | Apparatus       | Kw.<br>Capacity<br>(Each) | VOLTAGE       |          |
|--|---------------------|-----------------------|-----------------|---------------------------|---------------|----------|
|  |                     |                       |                 |                           | Incoming      | Outgoing |
| Ironwood & Bessemer Ry. & Light Co.      | Ironwood, Mich.     | Bessemer              | 1 Syn. M-g.     | 300                       | 2200          | 600      |
| Louisville Gas & Electric Co.            | Louisville, Ky.     |                       | 1 Syn. M-g.     | 1500                      | 13,200        | 600      |
| Mesaba Railway                           | Virginia, Minn.     | Hibbing, Minn.        | 1 Syn. M-g.     | 300                       | 22,000        | 700      |
| Mexican Tramways Co.                     | Mexico City         |                       | 1 Syn. M-g.     | 500                       | 19,000/31,000 | 600      |
| Michigan Central R.R. Co.                | Detroit, Mich.      | Detroit River Tunnel  | 1 Syn. M-g.     | 2000                      | 4600          | 650      |
| Missouri Pacific R.R.                    | Marion, Ill.        |                       | 1 Syn. M-g.     | 500                       | 2300          | 600      |
| Moroccan Ry.                             | Morocco             | Sidi-El-Aidi          | 2 Syn. M-g.     | 1000                      | 60,000        | 3000     |
| "  | "                   | Skirat                | 2 Syn. M-g.     | 1000                      | 60,000        | 3000     |
| "  | "                   | Mrizig                | 2 Syn. M-g.     | 1000                      | 60,000        | 3000     |
| New South Wales Gov't Rys.               | Sydney, Australia   |                       | 1 Syn. M-g.     | 200                       | 6600          | 600      |
| New York Central R.R.                    | New York, N. Y.     | Wakefield Substa. 7A  | 1 Syn. M-g.     | 2000                      | 11,000        | 666      |
|  | "                   | 110th St.             | 2 Syn. M-g.     | 2000                      | 11,000        | 666      |
| Northern Indiana Public Service Co.      | Michigan City, Ind. |                       | 1 Bat. Chg. Set | ½                         | 110/220       | 140      |
| Pacific Electric Ry. Co.                 | Los Angeles, Cal.   | Wilmington            | 1 Syn. M-g.     | 1000                      | 15,000        | 600      |
| Penn. Public Service Corp.               | Johnstown, Pa.      | Warren Substation     | 1 Syn. M-g.     | 300                       | 2300          | 600      |
| "  | "                   | Three-mile Substation | 1 Syn. M-g.     | 300                       | 2300          | 600      |
| Public Service Elec. & Gas Co.           | Newark, N. J.       | Miller St.            | 2 Syn. M-g.     | 1500                      | 4150          | 600      |
| "  | "                   | Norfolk St.           | 1 Syn. M-g.     | 1500                      | 13,200        | 600      |
| "  | "                   | Burlington            | 1 Syn. M-g.     | 500                       | 4150          | 700      |
| "  | "                   |                       | 1 Syn. M-g.     | 1500                      | 13,200        | 600      |
| Salt Lake, Garfield & Western Ry. Co.    | Salt Lake City      | Salt Air              | 1 Ind. M-g.     | 600                       | 44,000        | 1500     |
| "  | "                   | Salt Lake             | 1 Ind. M-g.     | 600                       | 44,000        | 1500     |
| South African Rys.                       | Durban, Africa      | Diamana               | 2 Syn. M-g.     | 2000                      | 88,000        | 3000     |
| "  | "                   | Colenso               | 2 Syn. M-g.     | 2000                      | 88,000        | 3000     |
| "  | "                   | Frere                 | 1 Syn. M-g.     | 2000                      | 88,000        | 3000     |
| "  | "                   | Escourt               | 3 Syn. M-g.     | 2000                      | 88,000        | 3000     |
| "  | "                   | Wilbrook              | 1 Syn. M-g.     | 2000                      | 88,000        | 3000     |
| "  | "                   | Lehigh Junction       | 2 Syn. M-g.     | 2000                      | 88,000        | 3000     |
| "  | "                   | Wessels Nek           | 2 Syn. M-g.     | 2000                      | 88,000        | 3000     |
| "  | "                   | Glencoe               | 2 Syn. M-g.     | 2000                      | 88,000        | 3000     |
| "  | "                   | Nottingham Road       | 1 Syn. M-g.     | 2000                      | 88,000        | 3000     |
| "  | "                   | New Lidgettown        | 2 Syn. M-g.     | 2000                      | 88,000        | 3000     |
| "  | "                   | Broughton             | 2 Syn. M-g.     | 2000                      | 88,000        | 3000     |
| "  | "                   | Cedars                | 1 Syn. M-g.     | 2000                      | 88,000        | 3000     |
| St. Joseph Ry., Light, Heat & Power Co.  | St. Joseph, Mo.     | Savannah Line         | 1 Syn. M-g.     | 200                       | 2300          | 600      |
| "  | "                   | So. St. Joseph        | 1 Syn. M-g.     | 300                       | 2300          | 600      |
| Wisconsin Trac., Light, Heat & Power Co. | Appleton, Wis.      | Neenah                | 1 Syn. M-g.     | 300                       | 4000          | 600      |
| Yakima Valley Transit Co.                | Yakima, Wash.       | Wide Hollow           | 1 Syn. M-g.     | 300                       | 6600          | 600      |
| "  | "                   |                       | 1 Syn. M-g.     | 300                       | 2300          | 600      |

## MERCURY ARC RECTIFIERS FOR RAILWAY SERVICE

| Company                             | Address           | Station      | Apparatus   | Kw.<br>Capacity<br>(Each) | VOLTAGE  |          |
|-------------------------------------|-------------------|--------------|-------------|---------------------------|----------|----------|
|                                     |                   |              |             |                           | Incoming | Outgoing |
| Chicago, N. S. and Milwaukee R. R.  | Highwood, Ill.    | No. 6        | 1 Merc. Arc | 1000                      | 33,000   | 600      |
| Chicago, S. S. and South Bend R. R. | Hammond, Ind.     | Furnessville | 1 Merc. Arc | 1500                      | 33,000   | 1500     |
| "                                   | "                 | New Carlyle  | 1 Merc. Arc | 750                       | 33,000   | 1500     |
| "                                   | "                 | Grandview    | 1 Merc. Arc | 750                       | 33,000   | 1500     |
| "                                   | "                 | Tea Lake     | 1 Merc. Arc | 750                       | 33,000   | 1500     |
| Philadelphia Rapid Transit Company  | Philadelphia, Pa. |              | 2 Merc. Arc | 500                       | 13,800   | 600      |

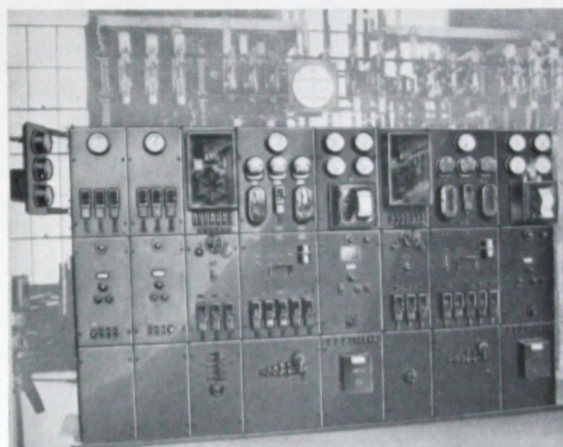
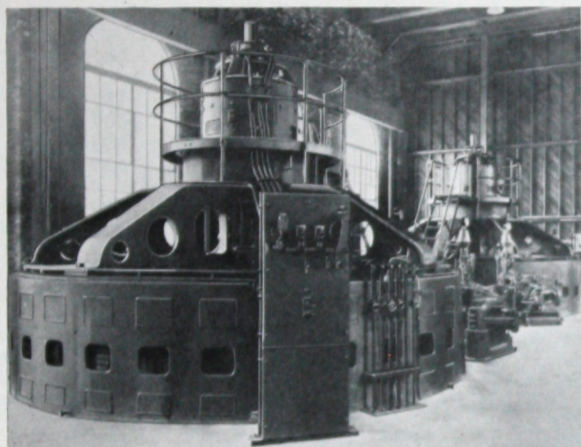


## AUTOMATIC STATIONS

### WATERWHEEL DRIVEN GENERATORS

Standard automatic switching equipments for the control of waterwheel-driven generators are now available for all standard voltages and frequencies, in practically all capacities.

These equipments start stations when high water level is indicated by a float switch, or when directed by a time switch, remote control, or a combination of these methods. Shutting down is performed when low water is indicated, or it may be accomplished by a time switch, remote control, or a combination of these methods.



Northern New York Utilities Co. Soft Maple Dam Station, Two 6600-volt, 9375-kv-a.  
Generators and Automatic Switching Equipment

| Company                                | Address                | Station           | Apparatus | Kv-a.<br>Capacity<br>(Each) | Outgoing<br>Voltage |
|--|------------------------|-------------------|-----------|-----------------------------|---------------------|
| Adirondack Power & Light Corp.         | Schenectady, N. Y.     | Sprite Creek      | 1 W.W.    | 7300                        | 6000                |
| Alpena Power Co.                       | Alpena, Mich.          | Norway            | 2 W.W.    | 1500 & 3500                 | 2300                |
| American Powder Mills                  | Maynard, Mass.         |                   | 1 W.W.    | 210                         | 600                 |
| American Smelting & Refining Co.       | Peru                   |                   | 1 W.W.    | 333                         | 2300                |
| American Thread Co.                    | Willimantic, Conn.     | Willimantic Mills | 1 W.W.    | 625                         | 2300                |
| Andes Copper Mining Co.                | Chile, S. A.           |                   | 1 W.W.    | 2350                        | 2300                |
| Atlas Plywood Corp.                    | E. Berkshire, Vt.      |                   | 1 W.W.    | 312                         | 2300                |
| Baldwin Hardware                       | Klamath Falls, Ore.    |                   | 1 W.W.    | 56                          | 2300                |
| Bangor Hydroelectric Co.               | Bangor, Me.            | Machias           | 1 W.W.    | 1800                        | 2300                |
|  |                        | Machias           | 1 W.W.    | 438                         | 2300                |
| Bibb Mfg. Company                      | Porterdale, Ga.        |                   | 2 W.W.    | 1500                        | 2300                |
| Black Bros. Flour Mills                | Beatrice, Neb.         | Blue Spring       | 2 W.W.    | 210 & 312                   | 2300                |
|  |                        | Development No. 3 | 1 W.W.    | 219                         | 2300                |
| Blue River Power Co.                   | Seward, Neb.           | Shestake, Neb.    | 1 W.W.    | 240                         | 2300                |
| Borough of Queenstown                  | New Zealand            |                   | 1 W.W.    | 75                          | 3300                |
| Bristol Electric Light Co.             | Bristol, N. H.         |                   | 1 W.W.    | 210                         | 2300                |
| Burkhardt Milling & Electric Power Co. | Hudson, Wis.           | No. 4             | 1 W.W.    | 275                         | 2300                |
| California-Oregon Power Co.            | Medford, Ore.          | Klamath Falls     | 1 W.W.    | 4000                        | 4400                |
| Cazenovia Electric Co.                 | Cazenovia, N. Y.       |                   | 1 W.W.    | 225                         | 2300                |
| Central Maine Power Co.                | Waterville, Me.        | Pumping           | 1 W.W.    | 1000                        | 4100                |
| Cheboygan Electric Light & Power Co.   | Cheboygan, Mich.       | Pellston          | W.W.      | 240                         | 2300                |
| Cia. Mineira De Electricidade          | De Fora, Brazil        |                   | 1 W.W.    | 1700                        | 6600                |
| City of Baltimore                      | Baltimore, Md.         | Back River Sewage | 2 W.W.    | 110                         | 2300                |
| City of Bandon                         | Bandon, Ore.           | Treatment Works   | 1 W.W.    | 200                         | 2300                |
| City of Colorado Springs               | Colorado Springs, Col. |                   | 1 W.W.    | 250                         | 6600                |
| City of Ft. Wayne                      | Ft. Wayne, Ind.        |                   | 1 W.W.    | 312                         | 2300                |
| City of Marquette                      | Marquette, Mich.       |                   | 1 W.W.    | 875                         | 2300/6600           |



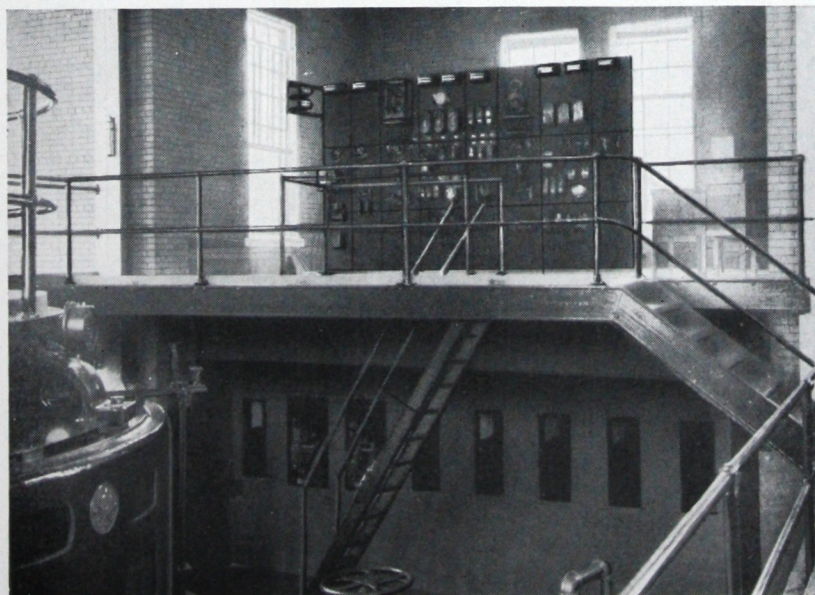
# GENERAL ELECTRIC

| Company                              | Address             | Station           | Apparatus | Kv-a.<br>Capacity<br>(Each) | Outgoing<br>Voltage |
|--------------------------------------|---------------------|-------------------|-----------|-----------------------------|---------------------|
| City of Norwich                      | Norwich, Conn.      |                   | 2 W.W.    | 500                         | 4600                |
| Consumers Power Co.                  | Jackson, Mich.      | Lowell            | 2 W.W.    | 400                         | 13,200              |
| Continental Gas & Electric Corp.     | Omaha, Neb.         | Fullerton         | 2 W.W.    | 312 & 180                   | 2300                |
| "                                    | "                   | St. Edward        | 1 W.W.    | 120                         | 2300                |
| Continental Paper & Bag Mills Corp.  | Rumford, Me.        | Sulphide          | 1 W.W.    | 650                         | 600                 |
| "                                    | "                   | Fort Hill         | 2 W.W.    | 500                         | 600                 |
| Crete Mills                          | Crete, Neb.         | Crete             | 1 W.W.    | 240                         | 2300                |
| Cumberland County Pr. & Lt. Co.      | Portland, Me.       | North Gorham      | 2 W.W.    | 1500                        | 11,000              |
| "                                    | Bar Mills, Maine    |                   | 1 W.W.    | 5000                        | 6600                |
| Dahlke & Giese                       | Wautoma, Wis.       |                   | 1 W.W.    | 100                         | 2300                |
| Fairbury Mill & Elevator Co.         | Fairbury, Neb.      |                   | 2 W.W.    | 150                         | 2300                |
| Farmington River & Power Co.         | Windsor, Conn.      |                   | 2 W.W.    | 5000                        | 2300                |
| Franklin Light & Power Co.           | Franklin, N. H.     |                   | 1 W.W.    | 300                         | 2300                |
| Fulton County Gas & Elec. Co.        | Gloversville, N. Y. | Sammondsville     | 1 W.W.    | 500                         | 2300                |
| George H. Jones                      | New Durham, N. H.   | Merrymeeting      | 1 W.W.    | 300                         | 4000                |
| "                                    | "                   | New Durham        | 1 W.W.    | 225                         | 4000                |
| "                                    | "                   | Alton             | 1 W.W.    | 150                         | 4000                |
| Gladwin Lt. & Pr. Co.                | Gladwin, Mich.      |                   | 1 W.W.    | 312                         | 2300                |
| Greenbay Mississippi Canal Co.       | Kankanna, Wis.      |                   | 4 W.W.    | 750                         | 2300                |
| Hayden, William, Milling Co.         | Tecumseh, Mich.     | Tecumseh          | 1 W.W.    | 312                         | 2300                |
| Hayward Electric Light & Power Co.   | Hayward, Wis.       |                   | 1 W.W.    | 210                         | 2300                |
| Holyoke Water Power Co.              | Holyoke, Mass.      | Boat Lock         | 1 W.W.    | 625                         | 6600                |
| "                                    | "                   |                   | 2 W.W.    | 1500                        | 6600                |
| International Paper Co.              | New York, N. Y.     | Corinth           | 1 W.W.    | 500                         | 600                 |
| "                                    | "                   | Caddyville        | 1 W.W.    | 750                         | 12,000              |
| "                                    | "                   | Lake George       | 1 W.W.    | 250                         | 600                 |
| "                                    | Piercefield, N. Y.  | Piercefield Mills | 1 W.W.    | 420                         | 600                 |
| Iowa Ry. & Light Co.                 | Cedar Rapids, Iowa  | Manchester        | 2 W.W.    | 100 & 1500                  | 2300                |
| "                                    | "                   | Cedar Rapids      | 3 W.W.    | 200                         | ....                |
| Keene Gas & Electric Co.             | Keene, N. H.        | Swansey           | 1 W.W.    | 150                         | 2300                |
| "                                    | "                   | Dublin Station    | 1 W.W.    | 200                         | 2300                |
| Keihin Denryoku K.K.                 | Japan               | Oshirokawa        | 1 W.W.    | 3500                        | 6600                |
| Kimberly Clark Co.                   | Kimberly, Wis.      |                   | 3 W.W.    | 900                         | 480                 |
| Kyushu Electric Light & Traction Co. | Japan               | Kawa, Kami Gawa   | 1 W.W.    | 1300                        | 6900                |
| Lancaster Light, Heat & Power Co.    | Lancaster, Pa.      | Rock Hill         | 1 W.W.    | 350                         | 5700                |
| "                                    | "                   | Slackwater        | 1 W.W.    | 650                         | 5700                |
| Louisville Hydroelectric Co.         | Louisville, Ky.     | Shippingport      | 8 W.W.    | 12,550                      | 14,000              |
| Malone Light & Power Co.             | Malone, N. Y.       | Wittelsey Ext.    | 1 W.W.    | 450                         | 2300                |
| Manchester Traction, Lt. & Pwr. Co.  | Manchester, N. H.   | Kelley's Falls    | 1 W.W.    | 1250                        | 2300                |
| Melones Mining Co.                   | Melones, Cal.       |                   | 1 W.W.    | 1000                        | 2300                |
| Michigan Gas & Electric Co.          | Three Rivers, Mich. |                   | 1 W.W.    | 210                         | 2300                |
| Nekoosa Edwards Paper Co.            | Port Edwards, Wis.  |                   | 1 W.W.    | 1600                        | 480                 |
| New England Power Co.                | Worcester, Mass.    | Sadawga Pond      | 1 W.W.    | 500                         | 6600                |
| "                                    | "                   | Searsburg, Vt.    | 1 W.W.    | 5000                        | 2300                |
| New Richmond Roller Mills            | New Richmond, Wis.  |                   | 1 W.W.    | 200                         | 6600                |
| Newton Falls Paper Co.               | Newton Falls, N. Y. |                   | 1 W.W.    | 850                         | 2300                |
| Nebraska Gas & Electric Co.          | Milford, Neb.       | Milford           | 2 W.W.    | 150                         | 2300                |
| New Jersey Power & Light Co.         | Sussex, N. J.       |                   | 1 W.W.    | 167                         | 2300                |
| Noblesville Light & Power Co.        | Noblesville, Ind.   |                   | 2 W.W.    | 240                         | 4800                |
| Northern Electric Company            | Green Bay, Wis.     | Chalk Hill        | 3 W.W.    | 3250                        | 2300                |
| "                                    | "                   | White Rapids      | 2 W.W.    | 3750                        | 2300                |
| "                                    | "                   | "                 | 2 W.W.    | 2500                        | 2300                |
| Northern New York Utilities Co.      | Croghan, N. Y.      | Soft Maple Plant  | 2 W.W.    | 9375                        | 6600                |
| "                                    | Watertown, N. Y.    | Sewall Island     | 2 W.W.    | 1250                        | 2300                |
| Northwestern Power & Light Co.       | Port Angeles, Wash. | Glines Canyon     | 1 W.W.    | 13,333                      | 6600                |
| Ontario Power Co.                    | Ontario, Cal.       |                   | 1 W.W.    | 500                         | 2300                |
| "                                    | "                   |                   | 1 W.W.    | 400                         | 2300                |
| Peninsular Power Co.                 | Madison, Wis.       | Pine River        | 2 W.W.    | 2000                        | 6600                |
| Potomac Valley Power Corp.           | Romney, W. Va.      |                   | 1 W.W.    | 50                          | 2300                |



## AUTOMATIC STATIONS

| Company                                    | Address                   | Station                | Apparatus | Kv-a.<br>Capacity<br>(Each) | Outgoing<br>Voltage |
|--|---------------------------|------------------------|-----------|-----------------------------|---------------------|
| Realty Development Company.....            | Hillsboro, N. H.....      | .....                  | 1 W.W.    | 4000                        | 2300                |
| Roanoke Rapids Power Co.....               | Roanoke, N. C.....        | .....                  | 1 W.W.    | 3000                        | 6600                |
| Rogers, J. & J.....                        | Ausable Forks, N. Y.....  | .....                  | 1 W.W.    | 500                         | 2300                |
| St. Lawrence Valley Power Corp.....        | Potsdam, N. Y.....        | .....                  | 1 W.W.    | 3000                        | 2300                |
| “  | “                         | Sugar Island.....      | 2 W.W.    | 3000                        | 4600                |
| “  | Heuvelton, N. Y.....      | .....                  | 2 W.W.    | 625                         | 2300                |
| “  | Potsdam, N. Y.....        | .....                  | 2 W.W.    | 1800                        | 4400                |
| So. Berkshire Power & Electric Co.....     | Stockbridge, Mass.....    | Rockdale.....          | 1 W.W.    | 500                         | 2300                |
| Southern Power Company.....                | Spencer, Mt., N. C.....   | .....                  | 2 W.W.    | 400                         | 11,000              |
| State Electricity Commission of Victoria.. | Melbourne, Australia..... | .....                  | 1 W.W.    | 7200                        | 6600                |
| “  | “                         | .....                  | 1 W.W.    | 2850                        | 6600                |
| “  | “                         | .....                  | 2 W.W.    | 4750                        | 6600                |
| “  | “                         | .....                  | 1 W.W.    | 350                         | 6600                |
| “  | “                         | .....                  | 1 W.W.    | 800                         | 6600                |
| Susquehanna Lt. & Pr. Co.....              | Susquehanna, Pa.....      | .....                  | 1 W.W.    | 25                          | 2300                |
| Texas Power Corporation.....               | New Braunfels, Texas..... | No. 1.....             | 2 W.W.    | 2250                        | 2400                |
| Texas Power Co.....                        | Seguin, Texas.....        | .....                  | 1 W.W.    | 1550                        | 2400                |
| The Collins Co.....                        | Collinsville, Conn.....   | .....                  | 1 W.W.    | 150                         | 2300                |
| Tokyo Denryoku.....                        | Japan.....                | .....                  | 1 W.W.    | 2500                        | 11,000              |
| Tomahawk Kraft Paper Co.....               | Mosinee, Wis.....         | .....                  | 3 W.W.    | 1250                        | 2300                |
| United Electric Light Co.....              | Springfield, Mass.....    | Birchey Bend No. 3.... | 2 W.W.    | 400                         | 5500                |
| Utah Power & Light Co.....                 | Salt Lake City, Utah..... | American Fork.....     | 2 W.W.    | 875                         | 6600                |
| “  | “                         | Upper Mill Creek.....  | 1 W.W.    | 300                         | 2300                |
| “  | “                         | St. Anthony, Idaho.... | 1 W.W.    | 500                         | 2300                |
| “  | “                         | .....                  | 2 W.W.    | 600                         | 6600                |
| “  | “                         | Cove.....              | 1 W.W.    | 8333                        | 7000                |
| “  | “                         | Farmington.....        | 1 W.W.    | 312                         | 2300                |
| Village of Speculator.....                 | Speculator, N. Y.....     | .....                  | 1 W.W.    | 156                         | 2300                |
| Wairarapa Electric Power Board.....        | New Zealand.....          | Equraru.....           | 1 W.W.    | 900                         | 2300                |
| “  | Wellington, New Zealand.. | Kaurarau.....          | 1 W.W.    | 900                         | 3500                |
| W. A. Ramsay, Ltd.....                     | Honolulu.....             | Grove Farm.....        | 1 W.W.    | 120                         | 2300                |
| Walter Baker, Ltd.....                     | Milton, Mass.....         | .....                  | 3 W.W.    | 125                         | 2300                |
| Winchendon Light & Power Co.....           | Winchendon, Mass.....     | .....                  | 1 W.W.    | 160                         | 2300                |
| Wincosin Valley Electric Co.....           | Merrill, Wis.....         | Upper Merrill.....     | 3 W.W.    | 1750                        | 2300                |
| Zwonecheck & Aksamit.....                  | Wilber, Neb.....          | DeWitt.....            | 1 W.W.    | 240                         | 2300                |



St. Lawrence Valley Power Corp., Sugar Island Station, Showing  
One Unit and Control Board for Two 4600-volt, 3000-kv-a.  
Waterwheel-driven Generators

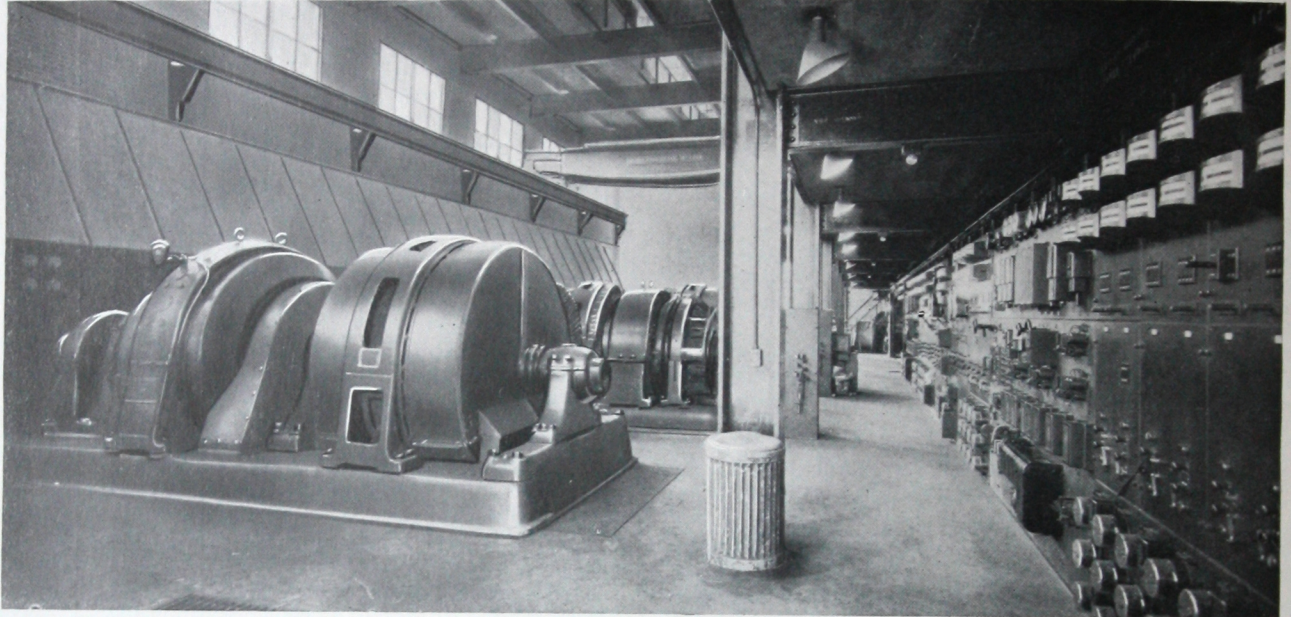


# GENERAL ELECTRIC

## MACHINES FOR LIGHTING SERVICE

Automatic switching equipment for all classes of central station service can now be furnished to meet practically any condition, using either synchronous motor-generators or converters.

The character of the load determines whether the station is to operate continuously or only on load-demand.



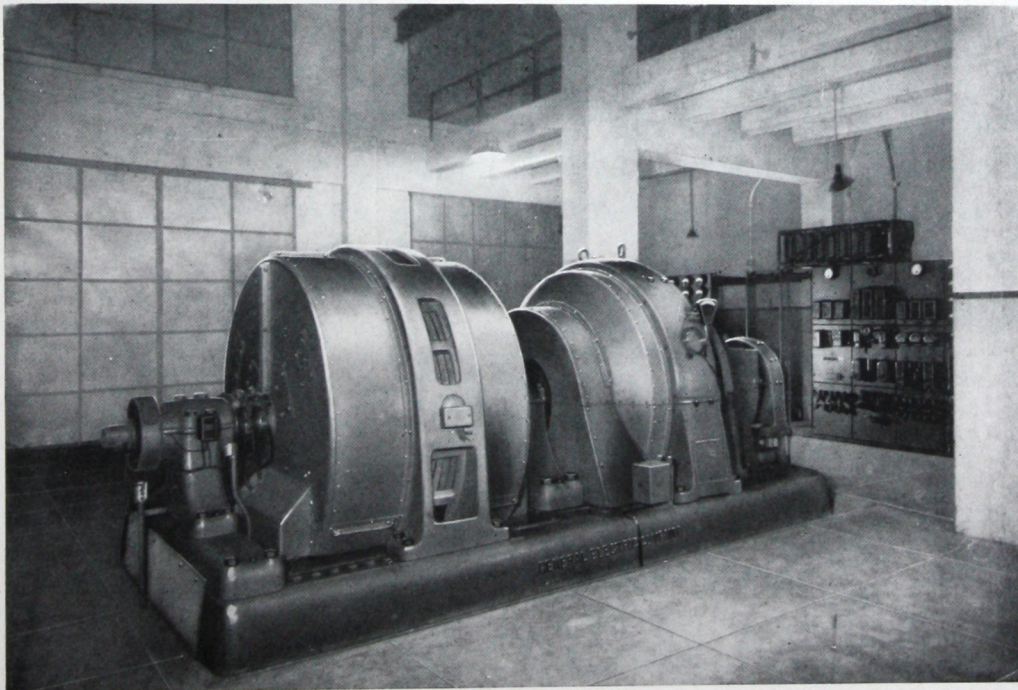
Automatic Switching Equipment Controlling 250-volt, 1800-kw. Synchronous Motor-generator Sets at the Gay St. Substation of the Columbus Rwy., Power and Light Co., Columbus, Ohio

| Company                             | Address              | Station             | Apparatus      | Kw.<br>Capacity<br>(Each) | VOLTAGE  |          |
|-------------------------------------|----------------------|---------------------|----------------|---------------------------|----------|----------|
|                                     |                      |                     |                |                           | Incoming | Outgoing |
| Alabama Power Co.....               | Mobile, Ala.....     | Mobile.....         | 1 Syn. Cond.   | 10,000                    | 11,000   | .....    |
| Buffalo General Electric Co.....    | Buffalo, N. Y.....   | New Edison.....     | 1 Syn. M-g.    | 1920                      | 11,000   | 275      |
| Cleveland Elec. Illum. Co.....      | Cleveland, Ohio....  | Bolivar.....        | 2 Syn. Conv.   | 2700                      | 11,400   | 210/285  |
| Columbus Ry., Power & Light Co...   | Columbus, Ohio....   | Gay St.....         | 2 Syn. M-g.    | 1800                      | 13,200   | 250      |
| "                                   | "                    | Rich St.....        | 1 Boost. Conv. | .....                     | .....    | .....    |
| "                                   | "                    | Gay St.....         | 1 Syn. Conv.   | 3120                      | 13,200   | 240/300  |
| Consumers Power Co.....             | Grand Rapids, Mich.  | Fulton St. Steam... | 1 Syn. M-g.    | 1000                      | 7500     | 125/250  |
| Dayton Power & Light Co.....        | Dayton, Ohio.....    | Fourth St.....      | 1 Syn. Conv.   | 2070/2610                 | 196/256  | 230/290  |
| Edison Electric Illuminating Co.... | Boston, Mass.....    | .....               | 1 Syn. M-g.    | 1000                      | .....    | 250      |
| General Electric Co.....            | Schenectady, N. Y..  | .....               | 1 Syn. M-g.    | 2000                      | 13,200   | 250/125  |
| General Electric Company of S. A... | Mexico City.....     | .....               | 1 Freq. Conv.  | 3750                      | 6000     | 6000     |
| Georgia Rwy. & Power Co.....        | Atlanta, Ga.....     | .....               | 1 Bat. Chg.    | 1 1/4                     | 110      | 125      |
| Hartford Electric Light Co.....     | Hartford, Conn.....  | So. Manchester...   | 1 Syn. Cond.   | 7500                      | 11,000   | .....    |
| Indiana & Michigan Electric Co....  | Benton Harbor, Mich  | .....               | 2 Syn. M-g.    | 500                       | 4400     | 600      |
| Indianapolis Light & Heat Co.....   | Indianapolis, Ind... | No. 6.....          | 1 Syn. M-g.    | 1000                      | 4000     | 160/300  |
| "                                   | "                    | No. 1.....          | 2 Syn. M-g.    | 1500                      | 4150     | 250      |
| "                                   | "                    | .....               | 1 Bal. Set     | 120                       | 4000     | 120/240  |
| "                                   | "                    | Kentucky Ave.....   | 2 Syn. M-g.    | 1500                      | 6000     | 250      |
| Kansas City Power & Light Co.....   | Kansas City, Mo...   | Station U.....      | 2 Syn. Conv.   | 2340 & 2600               | 13,200   | 125/250  |
| "                                   | "                    | Station V.....      | 2 Syn. Conv.   | 1500                      | 13,200   | 125/250  |
| "                                   | "                    | Station W.....      | 2 Syn. Conv.   | 1500                      | 13,200   | 125/250  |
| "                                   | "                    | Station C.....      | 2 Syn. Conv.   | 1500                      | 13,200   | 125/250  |
| "                                   | "                    | Station T.....      | 2 Syn. Conv.   | 1500                      | 13,200   | 125/250  |



# AUTOMATIC STATIONS

| Company                               | Address                 | Station             | Apparatus    | Kw.<br>Capacity<br>(Each) | VOLTAGE        |          |
|---------------------------------------|-------------------------|---------------------|--------------|---------------------------|----------------|----------|
|                                       |                         |                     |              |                           | Incoming       | Outgoing |
| Kentucky Utilities Co.....            | Louisville, Ky.....     | .....               | 2 Bat. Chg.  | 1                         | 110            | 140      |
| McKinney Steel Co.....                | Cleveland, Ohio.....    | Office Bldg.....    | 2 Ind. M-g.  | 100                       | 6600           | 230      |
| Mobile Electric Co.....               | Mobile, Ala.....        | Mobile.....         | 3 Syn. M-g.  | 2-750, 1-800              | 20,000         | 125/250  |
| New Orleans Public Service Co.....    | New Orleans, La.....    | Bourbon.....        | 2 Syn. M-g.  | 1000 & 1200               | 6600           | 130/260  |
| New York Edison Co.....               | New York.....           | East 41st St.....   | 3 Syn. M-g.  | 1500                      | 11,000         | 275      |
| Ohio Power Co.....                    | Cleveland, Ohio.....    | .....               | 2 Bat. Chg.  | 1                         | 220            | 140      |
| “                                     | “                       | Evergreen.....      | 1 Bat. Chg.  | 1                         | 220            | 140      |
| Oklahoma General Power Co.....        | Reinach, Okla.....      | .....               | 2 Syn. M-g.  | 25                        | 2300           | 250      |
| Otter Tail Power Co.....              | Fergus Falls, Minn..... | .....               | 1 Syn. Cond. | 1000                      | 38,100         |          |
| Penn Central Lt. & Pr. Co.....        | Altoona, Pa.....        | .....               | 2 Syn. Conv. | 750                       | 11,000         | 600      |
| Philadelphia Sub. Gas & Elec. Co..... | Philadelphia, Pa.....   | .....               | 1 Bat. Chg.  |                           | 440            | 140      |
| Potomac Electric Power Co.....        | Washington, D. C.....   | No. 21.....         | 2 Syn. M-g.  | 1800                      | 13,200         | 250      |
| Rochester Gas & Electric Corp.....    | Rochester, N. Y.....    | No. 38.....         | 4 Syn. M-g.  | 1800                      | 11,000         | 250      |
| “                                     | “                       | No. 6.....          | 1 Syn. Conv. | 2250                      | ....           | 250      |
| St. Paul Gas Light Co.....            | St. Paul, Minn.....     | Chevy Chase.....    | 1 Syn. M-g.  | 500                       | 4000           | 275      |
| The Detroit Edison Co.....            | Detroit, Mich.....      | Detroit News Bldg.. | 1 Syn. Conv. | 500                       | 4400           | 125/250  |
| “                                     | “                       | Beaubien.....       | 1 Syn. Conv. | 500                       | 4400           | 125/250  |
| “                                     | “                       | Frederick.....      | 1 Syn. Conv. | 500                       | 4400           | 125/250  |
| “                                     | “                       | Hotel Statler.....  | 1 Syn. Conv. | 500                       | 4400           | 125/250  |
| “                                     | “                       | .....               | 1 Syn. Conv. | 1000                      | 4800           | 300      |
| The Milwaukee Elec. Rwy. & Lt. Co.    | Milwaukee, Wis.....     | .....               | 1 Syn. Conv. | 3500                      | 13,200         | 240/300  |
| Union Electric Light & Power Co....   | St. Louis, Mo.....      | Substa. No. 3.....  | 2 Syn. M-g.  | 1800                      | 6600 or 13,200 | 250      |
| “                                     | “                       | Substa. No. 3.....  | 1 Syn. Conv. | 2250                      | 6600           | 125/250  |
| “                                     | “                       | .....               | 1 Syn. M-g.  | 1800                      | 13,200/6600    | 250      |
| Union Gas & Electric Co.....          | Cincinnati Ohio         | Peebles.....        | 1 Syn. M-g.  | 1875                      | 13,200         | 250      |
| “                                     | “                       | Jackson St.....     | 1 Syn. M-g.  | 1875                      | 13,200         | 250      |
| University of Kansas.....             | Lawrence, Kans.....     | .....               | 1 Syn. M-g.  | 75                        | 2000           | 110/220  |



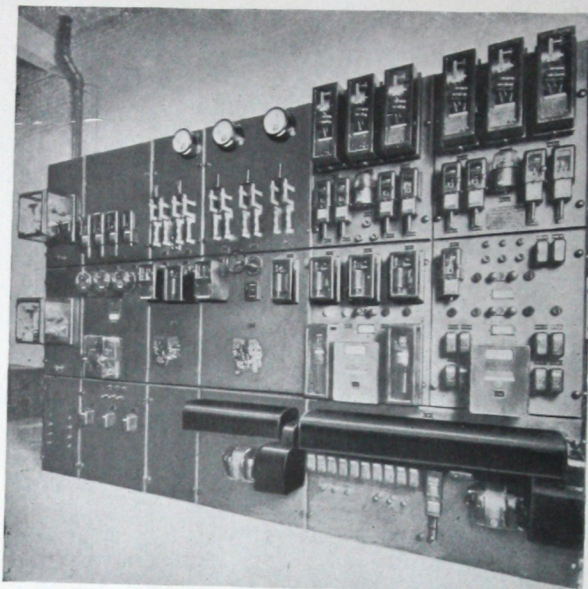
Automatic Switching Equipment, Potomac Electric Power Co., Washington, D. C.  
Substation No. 21, for Synchronous Motor-generator Set, 13,200-volt,  
2500 kv-a., 60-cycle Motor and 250-volt, 1800-kw. Generator



# GENERAL ELECTRIC

## POWER LINE SWITCHING EQUIPMENT

This equipment is used principally in stations of two or more sources of power and keeps the station bus supplied with power at all times. Immediately on failure of one source, a second, or third is automatically connected to the bus. The equipment will also tie in an additional source to the bus when the connected ones become overloaded.



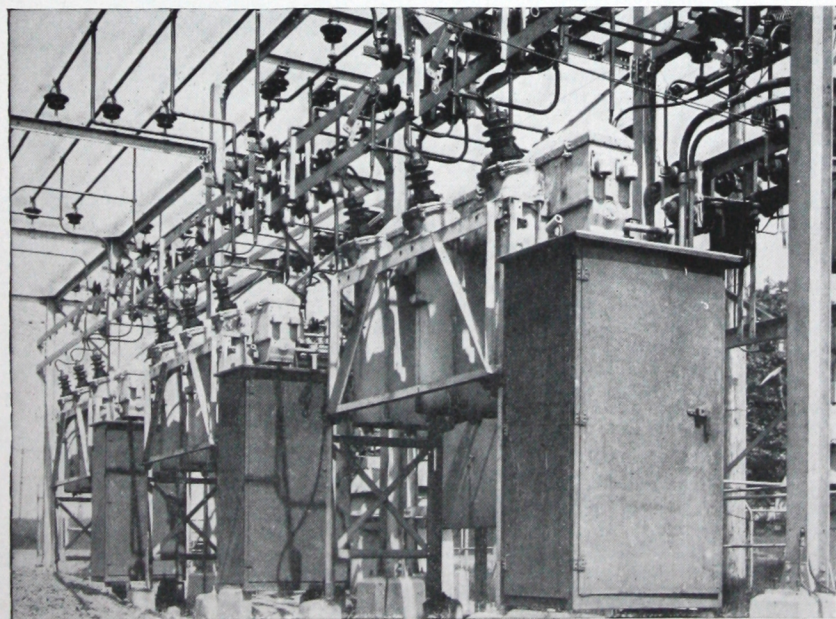
Automatic Switching Equipment, Kansas City Power & Light Co., for Controlling Two Incoming Lines, Two Transformer Banks, 13,200/2540/4400 Volts and Single-phase Feeders

| Company                              | Address            | Station        | No. of Power Lines | Kv.-a. Capacity (Each) | Incoming Voltage |
|--------------------------------------|--------------------|----------------|--------------------|------------------------|------------------|
| Adirondack Power & Light Corp.       | Schenectady, N. Y. | Rosa Road      | 1                  | 3000                   | 13,200           |
| Arkansas Central Power Co.           | Little Rock, Ark.  | Woodlawn       | 2                  | 2000                   | 13,200           |
|                                      |                    | No. 2 Height   | 2                  | 1500                   | 13,200           |
| Binghamton Lt., Ht. & Pr. Co.        | Binghamton, N. Y.  | South Side     | 1                  | 3000                   | 13,200           |
| Blackstone Valley Gas & Electric Co. | Pawtucket, R. I.   | York Ave.      | 2                  | 6000                   | 13,200           |
|                                      |                    | Blackstone     | 2                  | 6000                   | 13,200           |
| Buffalo Gen. Elec. Co.               | Buffalo, N. Y.     | New Edison     | 2                  | 2550                   | 11,000           |
| Calumet Gas & Electric Co.           | Valparaiso, Ind.   |                | 2                  | 900/2000               | 33,000/11,000    |
| Canton Electric Co.                  | Canton, N. C.      |                | 1                  | 300                    | 2300             |
| Duquesne Light Co.                   | Pittsburgh, Pa.    | Carrick        | 2                  | 3000                   | 22,000           |
| "                                    | "                  | Woodlawn       | 2                  | 2000                   | 22,000           |
| "                                    | "                  | Hazelwood      | 2                  | ....                   | 2300/4000        |
| "                                    | "                  | West End       | 2                  | 30                     | 22000/4000       |
| El Paso Electric Company             | El Paso, Texas     | Dallas         | 1                  | 5280                   | 13,200           |
| Flatbush Gas Co.                     | Brooklyn, N. Y.    | Albermarle Rd. | 2                  | 200                    | 2300             |
| Florida Power and Lt. Co.            | Miami, Fla.        | Fulford        | 2                  | 150A                   | 33,000           |
| Indiana General Service Co.          | Gas City, Ohio     |                | 2                  | ....                   | 33,000           |
| Kansas City Power & Light Co.        | Kansas City, Mo.   | Station "E"    | 4                  | 6000                   | 13,200           |
| "                                    | "                  | Station "D"    | 2                  | 7500                   | 13,200           |
| "                                    | "                  | Station "R"    | 5                  | 7500                   | 13,200           |
| "                                    | "                  | Station "R"    | 1                  | 3000                   | 13,200           |



## AUTOMATIC STATIONS

| Company   | Address                 | Station                       | No. of Power Lines | Kv-a. Capacity (Each) | Incoming Voltage |
|---|-------------------------|-------------------------------|--------------------|-----------------------|------------------|
| Kansas City Power & Light Co. ....              | Kansas City, Mo. ....   | Station "R" .....             | 1                  | 6000                  | 13,200           |
| "   | "                       | Station "F" .....             | 2                  | 6000                  | 13,200           |
| "   | "                       | Station "P" .....             | 1                  | 7500                  | 13,200           |
| "   | "                       | Station "P" .....             | 2                  | 6000                  | 13,200           |
| Malden Electric Co. ....                        | Malden, Mass. ....      |                               | 1                  | 10                    | 2300             |
| Northern Indiana Gas & Electric Co. ....        | Hammond, Ind. ....      | South Hammond. ....           | 2                  | 1200                  | 11,000/4000      |
| "   | "                       | Whiting. ....                 | 2                  | 1200                  | 11,000           |
| "   | "                       | Indiana Harbor. ....          | 2                  | 1200                  | 1100/4000        |
| Northern States Pr. Co. ....                    | Minneapolis, Minn. .... | 14th St. Vault. ....          | 1                  | ....                  | 4000/2300        |
| Oklahoma Gas & Electric Co. ....                | Oklahoma City. ....     |                               | 1                  | ....                  | 13,200           |
| Philadelphia Sub. Gas & Elec. Co. ....          | Philadelphia, Pa. ....  | Phoenixville. ....            | 1                  | 1500                  | 13,200           |
| Portland Electric Pr. Co. ....                  | Portland, Ore. ....     | Heaverton. ....               | 2                  | 200                   | 24,000           |
| Public Service Elec. & Gas. Co. ....            | Newark, N. J. ....      | Miller St. ....               | 2                  | 6000 & 3000           | 13,200           |
| Public Service Co. of Northern Illinois. ....   | Chicago, Ill. ....      | North Chicago. ....           | 2                  | 150                   | 33,000           |
| Puget Sound Power & Light Co. ....              | Seattle, Wash. ....     | Pine St. ....                 | 3                  | 3000                  | 13,800           |
| "   | "                       | Pasadena Pl. ....             | 2                  | 1500                  | 13,800           |
| "   | "                       | Rainier Ave. ....             | 1                  | 200A                  | 13,800           |
| Rochester Gas & Elec. Corp. ....                | Rochester, N. Y. ....   | Homeopathic Hospital. ....    | 2                  | 200                   | 4150/2400        |
| "   | "                       | Eastman School of Music. .... | 2                  | 100                   | 4150/2400        |
| "   | "                       | Municipal Hospital. ....      | 2                  | 200                   | 4150/2400        |
| The Detroit Edison Co. ....                     | Detroit, Mich. ....     | Livernois. ....               | 2                  | 1575                  | 24,000           |
| The Milwaukee Electric Railway & Light Co. .... | Milwaukee, Wis. ....    |                               | 1                  | 3000                  | 26,400           |
| "   | "                       | N. Milwaukee. ....            | 2                  | 2000                  | 26,400           |
| Union Elec. Light & Power Co. ....              | St. Louis, Mo. ....     | 19th and Gratiot Sts. ....    | 2                  | 7500                  | 33,000           |
| Union Gas & Electric Co. ....                   | Cincinnati, Ohio. ....  | Jackson St. ....              | 2                  | 2500                  | 13,200           |
| Virginia Ry. & Power Co. ....                   | Richmond, Va. ....      |                               | 2                  | ....                  | 2300             |
| "   | "                       | Howard Rd. Sub. ....          | 2                  | 2500                  | 13,200           |
| Westchester Light Co. ....                      | Mt. Vernon, N. Y. ....  |                               | 2                  | 1000                  | 13,200           |
| "   | "                       | Mamaroneck. ....              | 1                  | 2000                  | 4000/2300        |
| Wheeling Elec. Co. ....                         | Benwood, W. Va. ....    |                               | 2                  | 40A                   | 66,000           |



Outdoor Automatic Switching Equipment Controlling 13,200-volt,  
Substation, Adirondack Power & Light Corp.



# GENERAL ELECTRIC

## A-C. RECLOSING FEEDERS

Automatic alternating-current reclosing equipments keep the feeder connected to its source whenever the load conditions permit. When severe overload or short circuit occurs the feeder is temporarily disconnected from its source of supply. After a predetermined time the equipment automatically attempts restoration of service. If, after the second or third reclosure, as desired, the feeder is not clear of the abnormal condition, the circuit is locked open and must be reset by hand.



4000-volt, 3-phase, 3-wire, A-c., Reclosing Feeder Equipments,  
Lynn Gas & Electric Co., Swampscott, Mass.

| Company                             | Address                  | Station            | Apparatus    | Amp.<br>Capacity<br>(Each) | A-c.<br>Voltage<br>Outgoing |
|-------------------------------------|--------------------------|--------------------|--------------|----------------------------|-----------------------------|
| Adirondack Power & Light Corp.....  | Schenectady, N. Y.....   | Amsterdam.....     | 3 A-c. Recl. | 440                        | 4000                        |
| "                                   | "                        | South Amsterdam..  | 1 A-c. Recl. | 144                        | 4000                        |
| "                                   | "                        | South Amsterdam..  | 6 A-c. Recl. | 450                        | 4000                        |
| "                                   | "                        | Hudson Falls.....  | 2 A-c. Recl. | 125                        | 4000                        |
| "                                   | "                        | "                  | 1 A-c. Recl. | 200                        | 4000                        |
| "                                   | "                        | Rosa Road.....     | 5 A-c. Recl. | 150, 400                   | 4000                        |
| Alabama Power Co.....               | Birmingham, Ala.....     | Woodlawn.....      | 2 A-c. Recl. | 150                        | 4000                        |
| Allegheny Valley Light Co.....      | Pittsburgh, Pa.....      | "                  | 1 A-c. Recl. | 80                         | 2300                        |
| Appalachian Power Co.....           | Bluefield, W. Va.....    | New Kensington..   | 1 A-c. Recl. | "                          | "                           |
| "                                   | "                        | Coalwood.....      | 5 A-c. Recl. | 4-50, 1-150                | 13,200                      |
| "                                   | "                        | Susanna.....       | 1 A-c. Recl. | 130                        | 13,200                      |
| Arkansas Central Power Co.....      | Little Rock, Ark.....    | Coal Creek.....    | 4 A-c. Recl. | 43                         | 13,200                      |
| "                                   | "                        | No. 2 Heights..... | 5 A-c. Recl. | 2-225, 1-400, 1-200        | 2300                        |
| Atlantic City Electric Co.....      | Atlantic City, N. J..... | "                  | 1 A-c. Recl. | 250                        | 2300                        |
| Augusta, Aiken Rwy. & Elec. Co..... | Augusta, Ga.....         | "                  | 2 A-c. Recl. | "                          | 22,000                      |
|                                     |                          |                    | 2 A-c. Recl. | 33                         | 44,000                      |



# AUTOMATIC STATIONS

| Company                             | Address                | Station           | Apparatus     | Amp.<br>Capacity<br>(Each) | A-c.<br>Voltage<br>Outgoing |
|-------------------------------------|------------------------|-------------------|---------------|----------------------------|-----------------------------|
| Bangor Hydroelectric Co.            | Bangor, Me.            | Machias           | 1 A-c. Recl.  | 75                         | 2300                        |
| Bangor Rwy. & Electric Co.          | Orono, Me.             |                   | 1 A-c. Recl.  | 100                        | 2300                        |
| Bechtelsville Boro Elec. Co.        | Bechtelsville, Pa.     |                   | 1 A-c. Recl.  | 60                         | 2300                        |
| Binghamton Lt., Ht. & Pr. Co.       | Binghamton, N. Y.      | South Side        | 4 A-c. Recl.  | 3-300, 1-50                | 2300                        |
| Binghamton R. R. Co.                | Endicott, N. Y.        |                   | 1 A-c. Recl.  | 800                        | 2300                        |
| Birmingham Electric Co.             | Birmingham, Ala.       |                   | 1 A-c. Recl.  | 150                        | 2300                        |
| "                                   | "                      |                   | 1 A-c. Recl.  | 600                        | 2200                        |
| Birmingham Rwy., Lt. & Pwr. Co.     | Birmingham A'a.        | Milner Heights    | 1 A-c. Recl.  | 173                        | 4000                        |
| Black Bros. Flour Mills             | Beatrice, Neb.         | Blue Spring       | 1 A-c. Recl.  | 75                         | 2300                        |
| Blackstone Valley Gas & Elec. Co.   | Pawtucket, R. I.       |                   | 5 A-c. Recl.  | 2-200, 1-260, 2-300        | 2300                        |
| "                                   | "                      |                   | 9 A-c. Recl.  | 3-400, 6-300               | 2300                        |
| "                                   | "                      |                   | 1 A-c. Recl.  | 25                         | 13,200                      |
| "                                   | "                      |                   | 1 A-c. Recl.  | 60                         | 4000/2300                   |
| Blue Mountain Elec. Co.             | Myerstown, Pa.         |                   | 1 A-c. Recl.  | 300                        | 2200                        |
| Broad River Power Co.               | Johnston, S. C.        |                   | 1 A-c. Recl.  | 150                        | 2300                        |
| "                                   | Columbia, S. C.        |                   | 1 A-c. Recl.  | 300                        | 2300                        |
| "                                   | "                      | Batesburgh        | 5 A-c. Recl.  | 1-600, 4-200               | 2300                        |
| Brooke Electric Co.                 | New Cumberland, W. Va. |                   | 1 A-c. Recl.  | 260                        | 6900                        |
| Brooklyn Edison Co.                 | Brooklyn, N. Y.        |                   | 36 A-c. Recl. | 250                        | 3000                        |
| "                                   | "                      |                   | 45 A-c. Recl. | 200                        | 4600                        |
| "                                   | "                      |                   | 4 A-c. Recl.  | 800                        | 3000                        |
| "                                   | "                      |                   | 4 A-c. Recl.  | 600                        | 4600                        |
| "                                   | "                      |                   | 1 A-c. Recl.  | 300                        | 4600                        |
| Calumet Gas & Elec. Co.             | Valparaiso, Ind.       |                   | 4 A-c. Recl.  | 3-250, 1-56                | 2300                        |
| Canton Electric Co.                 | Canton, N. C.          |                   | 2 A-c. Recl.  | 80                         | 2300                        |
| Carolina Power Co.                  | Rowland, N. C.         |                   | 2 A-c. Recl.  | 1-200, 1-6.6               | 2300                        |
| "                                   | Ashboro, N. C.         |                   | 1 A-c. Recl.  | 75                         | 2300                        |
| Central Hudson Gas & Electric Co.   | Poughkeepsie, N. Y.    | New Paltz         | 2 A-c. Recl.  | 200                        | 4000                        |
| "                                   | "                      | Walden            | 1 A-c. Recl.  | 300                        | 2300                        |
| Central Illinois Light Co.          | Peoria, Ill.           | Glendale Ave.     | 4 A-c. Recl.  | 200                        | 4000                        |
| "                                   | "                      | Lincoln Ave.      | 3 A-c. Recl.  | 200                        | 4000                        |
| "                                   | "                      | Liberty St.       | 2 A-c. Recl.  | 200                        | 4000                        |
| "                                   | "                      | Peoria Heights    | 2 A-c. Recl.  | 200                        | 4000                        |
| Central Illinois Public Service Co. | Springfield, Ill.      | Assumption        | 1 A-c. Recl.  | 125                        | 2300                        |
| "                                   | "                      | Gibson City, Ill. | 1 A-c. Recl.  | 30                         | 2300                        |
| "                                   | "                      | Arcola, Ill.      | 2 A-c. Recl.  | 50                         | 2300                        |
| "                                   | "                      | Frederick         | 1 A-c. Recl.  | 25                         | 6600                        |
| "                                   | "                      | St. David         | 1 A-c. Recl.  | 50                         | 13,200                      |
| "                                   | "                      | Augusta           | 1 A-c. Recl.  | 50                         | 8000                        |
| "                                   | "                      | Nokomis           | 1 A-c. Recl.  | 50                         | 2300                        |
| "                                   | "                      | Grayville         | 2 A-c. Recl.  | 25 and 50                  | 6600                        |
| Central Iowa Pr. & Lt. Co.          | Waterloo, Iowa         |                   | 3 A-c. Recl.  | 150                        | 4000                        |
| "                                   | "                      |                   | 3 A-c. Recl.  | 150                        | 4000                        |
| Central Light & Pr. Co.             | Washburn, N. D.        |                   | 1 A-c. Recl.  | 30                         | 38,100                      |
| Central Massachusetts Electric Co.  | Palmer, Mass.          |                   | 1 A-c. Recl.  |                            | 4000                        |
| Cerro De Pasco Copper Corp.         | Peru                   |                   | 1 A-c. Recl.  | 125                        | 2300                        |
| Chicago North Shore & Mil. R. R.    | Highwood, Ill.         |                   | 2 A-c. Recl.  | 400                        | 37,000                      |
| Chickasha Gas & Elec. Co.           | Chickasha, Okla.       |                   | 2 A-c. Recl.  | 50                         | 13,200                      |
| Citizens' Light & Power Co.         | Oil City, Pa.          |                   | 2 A-c. Recl.  | 200                        | 2300                        |
| Citizens' Traction Co.              | Oil City, Pa.          |                   | 1 A-c. Recl.  |                            | 2300                        |
| City of Boston                      | Boston, Mass.          |                   | 1 A-c. Recl.  |                            | 13,200                      |
| City of Cleveland                   | Cleveland, Ohio        | Ansel Road        | 4 A-c. Recl.  | 300                        | 2300                        |
| "                                   | "                      |                   | 3 A-c. Recl.  | 400                        | 15,000                      |
| "                                   | "                      | Winsor            | 2 A-c. Recl.  | 1-300, 1-400               | 2300                        |
| City of Edmonton                    | Edmonton, Canada       |                   | 1 A-c. Recl.  | 300                        | 2300                        |
| City of Fort Wayne                  | Fort Wayne, Ind.       |                   | 1 A-c. Recl.  | 300                        | 2300                        |
| City of Jacksonville                | Jacksonville, Fla.     | Talleyrand        | 1 A-c. Recl.  | 300                        | 2400                        |
| "                                   | "                      | Municipal Dock    | 1 A-c. Recl.  | 300                        | 2400                        |
| "                                   | "                      | Enterprise        | 1 A-c. Recl.  | 300                        | 2400                        |
| "                                   | "                      | Talleyrand        | 2 A-c. Recl.  | 300                        | 2400                        |
| "                                   | "                      | Twenty-first St.  | 2 A-c. Recl.  | 300                        | 2400                        |
| "                                   | "                      | St. John's Park   | 2 A-c. Recl.  | 300                        | 2400                        |
| "                                   | "                      | Enterprise        | 2 A-c. Recl.  | 300                        | 2400                        |
| "                                   | "                      | Talleyrand        | 1 A-c. Recl.  | 300                        | 2400                        |
| "                                   | "                      | Enterprise St.    | 1 A-c. Recl.  | 300                        | 2400                        |



# GENERAL ELECTRIC

| Company                              | Address                | Station          | Apparatus    | Amp.<br>Capacity<br>(Each) | A-c.<br>Voltage<br>Outgoing |
|--------------------------------------|------------------------|------------------|--------------|----------------------------|-----------------------------|
| City of Kansas City.....             | Kansas City, Mo.....   |                  | 1 A-c. Recl. | 400                        | 4000                        |
| "                                    | "                      |                  | 1 A-c. Recl. | 400                        | 13,200                      |
| "                                    | "                      |                  | 4 A-c. Recl. | 400                        | 2300                        |
| "                                    | "                      |                  | 1 A-c. Recl. | 250                        | 13,200                      |
| City of Pasadena.....                | Pasadena, Cal.....     |                  | 8 A-c. Recl. | 1-600, 3-800, 4-200        | 2300                        |
| City of Philadelphia.....            | Philadelphia, Pa.....  |                  | 1 A-c. Recl. | 25                         | 2300                        |
| City of Santos Imp. Co.....          | Brazil.....            |                  | 1 A-c. Recl. | 300                        | 6600                        |
| City of Seattle.....                 | Seattle, Wash.....     |                  | 3 A-c. Recl. | 300                        | 4000                        |
| Cleveland Electric Ill. Co.....      | Cleveland, Ohio.....   |                  | 4 A-c. Recl. | 150                        | 2300                        |
| "                                    | "                      |                  | 1 A-c. Recl. | 150                        | 4000                        |
| Clyde River Power Co.....            | Newport, Vt.....       |                  | 1 A-c. Recl. | 100                        | 2300                        |
| Coast Valley Gas & Electric.....     | Monterey, Cal.....     |                  | 7 A-c. Recl. | 1-100, 6-150               | 4000                        |
| Columbus Rwy., Pr. & Lt. Co.....     | Columbus, Ohio.....    | Gay St.          | 4 A-c. Recl. | 200                        | 4150                        |
| "                                    | "                      | Bartonville      | 4 A-c. Recl. | 200                        | 4150                        |
| Commonwealth Power Co.....           | Bartonville, Ill.....  |                  | 6 A-c. Recl. |                            | 13,200                      |
| Concord Elec. Co.....                | Concord, N. H.....     |                  | 2 A-c. Recl. | 300/500                    | 2300                        |
| Connecticut Lt. & Pr. Co.....        | Waterbury, Conn.....   |                  | 1 A-c. Recl. | 200                        | 4400                        |
| Consolidated Mining Co.....          | Eureka, Utah.....      |                  | 1 A-c. Recl. | 800                        | 2400                        |
| Consumers Power Co.....              | Chesaning, Mich.....   |                  | 2 A-c. Recl. | 100, 20                    | 5000                        |
| "                                    | Marshall, Mich.....    | St. John         | 2 A-c. Recl. | 100                        | 2500                        |
| "                                    | Jackson, Mich.....     | Pontiac          | 3 A-c. Recl. | 1-100, 2-150               | 2500                        |
| "                                    | "                      |                  | 2 A-c. Recl. | 500                        | 5000                        |
| "                                    | Ovid, Mich.....        |                  | 2 A-c. Recl. | 30                         | 5000                        |
| "                                    | "                      |                  | 2 A-c. Recl. | 1-30, 1-100                | 2500                        |
| Counties Gas & Electric Co.....      | Norristown, Pa.....    |                  | 7 A-c. Recl. | 1-400, 3-200, 3-100        | 2400                        |
| Dallas Power & Light Co.....         | Dallas, Texas.....     |                  | 2 A-c. Recl. | 300                        | 3000                        |
| "                                    | "                      | North Dallas     | 1 A-c. Recl. | 300                        | 4000                        |
| "                                    | "                      |                  | 2 A-c. Recl. | 300                        | 4000                        |
| Dayton Power & Light Co.....         | Dayton, Ohio.....      | Smithville Rd.   | 3 A-c. Recl. | 300                        | 2300                        |
| "                                    | "                      |                  | 4 A-c. Recl. | 300                        | 6600                        |
| Des Moines Electric Co.....          | Des Moines, Iowa.....  | Federal St.      | 4 A-c. Recl. | 80                         | 2300                        |
| Duquesne Light Co.....               | Pittsburgh, Pa.....    | Woodlawn         | 1 A-c. Recl. | 300                        | 4000                        |
| "                                    | "                      | Carrick          | 6 A-c. Recl. |                            | 4000/2300                   |
| "                                    | "                      | Conway           | 9 A-c. Recl. |                            | 4000/2300                   |
| "                                    | "                      | Hazelwood        | 4 A-c. Recl. | 300                        | 4000/2300                   |
| "                                    | "                      |                  | 3 A-c. Recl. | 300                        | 2300/4000                   |
| "                                    | "                      | Hazelwood        | 6 A-c. Recl. | 300                        | 2300/4000                   |
| "                                    | "                      |                  | 3 A-c. Recl. | 300                        | 2300                        |
| Dutchess Lt. Ht. & Pr. Co.....       | Rhinebeck, N. Y.....   | Phillipsburg     | 3 A-c. Recl. | 100                        | 2300/150                    |
| Eastern Pennsylvania Power Co.....   | Easton, Pa.....        |                  | 1 A-c. Recl. | 200                        | 2300                        |
| Eastern Shore Gas & Electric Co..... | Acian City, Ind.....   |                  | 1 A-c. Recl. | 200                        | 2300                        |
| "                                    | "                      | Georgetown       | 1 A-c. Recl. | 50                         | 25,000                      |
| "                                    | "                      | Milton           | 1 A-c. Recl. | 200                        | 2300                        |
| "                                    | "                      | Rheoboth         | 1 A-c. Recl. | 200                        | 2300                        |
| "                                    | "                      | Camden, Del..... | 1 A-c. Recl. | 200                        | 2300                        |
| "                                    | "                      |                  | 1 A-c. Recl. | 100/200                    | 2300                        |
| Eastern Texas Elec. Co.....          | Beaumont, Tex.....     |                  | 1 A-c. Recl. | 100                        | 2300                        |
| "                                    | "                      |                  | 1 A-c. Recl. | 150                        | 33,000                      |
| "                                    | "                      |                  | 1 A-c. Recl. | 250                        | 2300                        |
| Edison Electric Co.....              | Lititz, Pa.....        |                  | 1 A-c. Recl. | 200                        | 2300                        |
| "                                    | Lancaster, Pa.....     |                  | 1 A-c. Recl. | 100                        | 12,000                      |
| Edison Elec. Ill. Co.....            | Boston, Mass.....      |                  | 2 A-c. Recl. | 300                        | 4600                        |
| Edison Elec. Ill. Co. of Boston..... | So. Hanson, Mass.....  |                  | 7 A-c. Recl. | 100                        | 4000/2300                   |
| Elmira Water, Lt. & R.R. Co.....     | Elmira, N. Y.....      |                  | 1 A-c. Recl. | 80                         | 2300                        |
| El Paso Electric Co.....             | El Paso, Texas.....    | Dallas St.       | 2 A-c. Recl. | 400                        | 2300                        |
| El Paso Elec. Rwy. Co.....           | El Paso, Texas.....    |                  | 1 A-c. Recl. | 300                        | 4000                        |
| "                                    | "                      |                  | 1 A-c. Recl. | 400                        | 13,200                      |
| Empresa Guatemalteca De Electricidad | Guatemala.....         |                  | 1 A-c. Recl. | 80                         | 13,200                      |
| Eugene Water Board.....              | Eugene, Ore.....       |                  | 1 A-c. Recl. | 20                         | 4000                        |
| "                                    | "                      |                  | 2 A-c. Recl. | 200                        | 2300                        |
| Florida East Coast Rwy.....          | Jacksonville, Fla..... |                  | 1 A-c. Recl. | 400                        | 2300                        |
| "                                    | "                      |                  | 1 A-c. Recl. | 150                        | 2300                        |
| Florida Power & Light Co.....        | Miami, Fla.....        |                  | 3 A-c. Recl. | 150                        | 33,000                      |



# AUTOMATIC STATIONS

| Company                           | Address             | Station            | Apparatus     | Amp.<br>Capacity<br>(Each) | A-c.<br>Voltage<br>Outgoing |
|-----------------------------------|---------------------|--------------------|---------------|----------------------------|-----------------------------|
| Florida Power Corp.               | Ochlawaha, Fla.     |                    | 1 A-c. Recl.  | 400                        | 33,000                      |
| "                                 | "                   |                    | 1 A-c. Recl.  | 400                        | 33,000                      |
| Florida Public Service Co.        | Orlando, Fla.       |                    | 2 A-c. Recl.  | 400-600                    | 2300                        |
| "                                 | "                   |                    | 1 A-c. Recl.  | 100                        | 2300                        |
| "                                 | "                   | Longwood           | 4 A-c. Recl.  | 2-40, 2-80                 | 2300                        |
| "                                 | "                   | Lake Wales         | 2 A-c. Recl.  | 200                        | 2300                        |
| Fulton County Gas & Elec. Co.     | Gloversville, N. Y. | Fonda              | 1 A-c. Recl.  | 200                        | 2300                        |
| "                                 | Johnstown, N. Y.    | Elizabeth St.      | 1 A-c. Recl.  | 400                        | 2300                        |
| Georgia-Florida Power Co.         | Bainbridge, Ga.     |                    | 1 A-c. Recl.  | 400                        | 33,000                      |
| Georgia Rwy. & Power Co.          | Atlanta, Ga.        | Cartersville       | 2 A-c. Recl.  | 100                        | 38,000                      |
| "                                 | "                   | Aragon             | 2 A-c. Recl.  | 100                        | 38,000                      |
| "                                 | "                   | Commerce           | 2 A-c. Recl.  | 400                        | 2200                        |
| "                                 | "                   | Toccoa             | 1 A-c. Recl.  | 200                        | 2300                        |
| "                                 | "                   | Lindale            | 3 A-c. Recl.  | 60                         | 38,000                      |
| "                                 | "                   |                    | 2 A-c. Recl.  | 400                        | 22,000                      |
| "                                 | "                   |                    | 2 A-c. Recl.  | 400                        | 4000                        |
| Great Western Power Co.           | San Francisco, Cal. | Valara             | 1 A-c. Recl.  | 200                        | 220                         |
| "                                 | Crockett, Cal.      | Isleton            | 7 A-c. Recl.  |                            | 25,000                      |
| Hartford Elec. Light Co.          | Hartford, Conn.     | Windsor            | 1 A-c. Recl.  | 400                        | 4800                        |
| Havana Central R.R.               | Havana, Cuba        |                    | 1 A-c. Recl.  | 25                         | 2300                        |
| Havana Electric Ry. Lt. & Pr. Co. | Cuba                |                    | 10 A-c. Recl. | 20                         | 2200                        |
| "                                 | "                   |                    | 38 A-c. Recl. | 20                         | 4000                        |
| "                                 | "                   |                    | 3 A-c. Recl.  | 300                        | 440                         |
| "                                 | "                   |                    | 3 A-c. Recl.  | 150                        | 440                         |
| "                                 | "                   |                    | 1 A-c. Recl.  | 150                        | 2200                        |
| "                                 | "                   |                    | 1 A-c. Recl.  | 200                        | 2300                        |
| "                                 | "                   |                    | 1 A-c. Recl.  | 40                         | 2300                        |
| "                                 | "                   |                    | 1 A-c. Recl.  | 20                         | 2300                        |
| "                                 | "                   |                    | 2 A-c. Recl.  | 100                        | 2300                        |
| "                                 | "                   | Cruces             | 1 A-c. Recl.  | 40                         | 2200                        |
| "                                 | "                   | Espenanzata        | 1 A-c. Recl.  | 40                         | 2200                        |
| "                                 | "                   | Camajuanista       | 1 A-c. Recl.  | 40                         | 2200                        |
| "                                 | "                   | Remediosata        | 1 A-c. Recl.  | 40                         | 2200                        |
| "                                 | "                   | Caebarien          | 1 A-c. Recl.  | 150                        | 2200                        |
| "                                 | "                   |                    | 1 A-c. Recl.  | 35                         | 33,000                      |
| "                                 | "                   | Jovellanos         | 1 A-c. Recl.  | 40                         | 2200                        |
| "                                 | "                   | Soriano            | 1 A-c. Recl.  | 40                         | 2200                        |
| "                                 | "                   | Hatillo            | 1 A-c. Recl.  | 20                         | 2200                        |
| "                                 | "                   | Alto Sango         | 1 A-c. Recl.  | 20                         | 2200                        |
| "                                 | "                   | La Maya            | 1 A-c. Recl.  | 20                         | 2200                        |
| "                                 | "                   |                    | 5 A-c. Recl.  | 20                         | 4000/2300                   |
| "                                 | "                   |                    | 5 A-c. Recl.  | 40                         | 4000/2300                   |
| "                                 | "                   |                    | 1 A-c. Recl.  | 500                        | 440                         |
| "                                 | "                   |                    | 6 A-c. Recl.  | 125, 250                   | 440                         |
| "                                 | "                   |                    | 1 A-c. Recl.  | 200                        | 440                         |
| "                                 | "                   |                    | 2 A-c. Recl.  | 20                         | 4000/2300                   |
| "                                 | "                   |                    | 7 A-c. Recl.  | 20                         | 4000/2300                   |
| "                                 | "                   |                    | 1 A-c. Recl.  | 500                        | 440                         |
| "                                 | "                   |                    | 1 A-c. Recl.  | 250                        | 440                         |
| Hershey Chocolate Co.             | Hershey, Pa.        |                    | 1 A-c. Recl.  | 145 Kv-a.                  | 2300                        |
| Horse Shoe Lumber Co.             | River Falls, Ala.   |                    | 1 A-c. Recl.  | 400                        | 2300                        |
| Houston Ltg. & Pr. Co.            | Houston, Texas      |                    | 1 A-c. Recl.  | 80                         | 13,200                      |
| "                                 | "                   | Boling             | 1 A-c. Recl.  | 300                        | 2300                        |
| "                                 | "                   | Wallis             | 1 A-c. Recl.  | 100                        | 2300                        |
| Hudson Coal Company               | Scranton, Pa.       |                    | 2 A-c. Recl.  | 300/400                    | 2300                        |
| Huntington Light & Fuel Co.       | Huntington, Ind.    | No. Manchester     | 2 A-c. Recl.  | 80                         | 2300                        |
| Illinois Power & Light Corp.      | Chicago, Ill.       | Valley Falls, Kan. | 2 A-c. Recl.  | 75                         | 2300                        |
| "                                 | "                   | Topeka, Kan.       | 1 A-c. Recl.  | 200                        | 2300                        |
| "                                 | "                   | Belleville         | 1 A-c. Recl.  | 200                        | 2200                        |
| "                                 | "                   | Decatur            | 2 A-c. Recl.  | 150                        | 13 200                      |
| "                                 | "                   |                    | 1 A-c. Recl.  | 600                        | 2300                        |
| Indiana Power Co.                 | Granite City, Ill.  |                    | 1 A-c. Recl.  |                            | 37 000                      |
| Indianapolis Light & Heat Co.     | Vincennes, Ind.     |                    | 1 A-c. Recl.  |                            |                             |
| "                                 | Indianapolis, Ind.  |                    | 15 A-c. Recl. | 300                        | 4400                        |
| "                                 | "                   | Speedway           | 1 A-c. Recl.  | 300                        | 4100                        |
| "                                 | "                   |                    | 4 A-c. Recl.  | 300                        | 4100                        |



# GENERAL ELECTRIC

| Company                            | Address               | Station              | Apparatus     | Amp.<br>Capacity<br>(Each) | A-c.<br>Voltage<br>Outgoing |
|------------------------------------|-----------------------|----------------------|---------------|----------------------------|-----------------------------|
| Interstate Lt. & Pwr. Co.          | Shullsburg, Wis.      | Shullsburg           | 1 A-c. Recl.  | 20                         | 33,000                      |
| Interstate Public Service Co.      | Indianapolis, Ind.    |                      | 1 A-c. Recl.  | 200                        | 4000                        |
| "                                  | "                     | Wilton, Ky.          | 1 A-c. Recl.  | 100                        | 2300                        |
| "                                  | "                     | Hagerstown           | 2 A-c. Recl.  | 1-40 1-80                  | 2300                        |
| "                                  | "                     | North Vernon         | 5 A-c. Recl.  | 100                        | 2300                        |
| "                                  | "                     | Indianapolis         | 1 A-c. Recl.  | 12.5                       | 13,200                      |
| "                                  | "                     | Clear Creek          | 1 A-c. Recl.  | 200                        | 2300/4000                   |
| Iowa Electric Company              | Maquoketa, Iowa       |                      | 4 A-c. Recl.  | 300                        | 2300                        |
| Iowa Light, Heat & Power Co.       | Quimby, Iowa          |                      | 2 A-c. Recl.  | 400                        | 45,000                      |
| "                                  | "                     | Storm Lake           | 1 A-c. Recl.  | 400                        | 33,000                      |
| "                                  | "                     |                      | 2 A-c. Recl.  | 150                        | 33,000                      |
| "                                  | "                     | Carroll              | 1 A-c. Recl.  | 30                         | 33,000                      |
| "                                  | "                     | Lakeview             | 1 A-c. Recl.  | 30                         | 33,000                      |
| Iowa Ry. & Lt. Co.                 | Cedar Rapids Iowa     |                      | 2 A-c. Recl.  | 10                         | 6600                        |
| "                                  | "                     |                      | 1 A-c. Recl.  | 20                         | 6600                        |
| "                                  | "                     | Norway               | 2 A-c. Recl.  | 15                         | 6600                        |
| "                                  | "                     | Grand Junction       | 1 A-c. Recl.  | 20                         | 6600                        |
| "                                  | "                     |                      | q A-c. Recl.  | 300                        | 15,000                      |
| "                                  | "                     |                      | 2 A-c. Recl.  | 30                         | 33,000                      |
| Iron Mountain Elec. Lt. & Pwr. Co. | Iron Mountain, Mich.  | Kingsford            | 4 A-c. Recl.  | 150 300                    | 4000                        |
| "                                  | "                     |                      | 3 A-c. Recl.  | 200                        | 4000                        |
| Jersey Central Power & Light Co.   | Farmingdale, N. J.    |                      | 1 A-c. Recl.  | 75, 150                    | 2300                        |
| "                                  | Keansburg, N. J.      |                      | 2 A-c. Recl.  | 200                        | 2300                        |
| "                                  | Highlands, N. J.      |                      | 2 A-c. Recl.  | 200                        | 2300                        |
| "                                  | Matawan, N. J.        |                      | 1 A-c. Recl.  | 150                        | 2300                        |
| "                                  | Point Pleasant, N. J. |                      | 1 A-c. Recl.  | 100                        | 2300                        |
| "                                  | "                     |                      | 1 A-c. Recl.  | 50                         | 2300                        |
| "                                  | "                     |                      | 1 A-c. Recl.  | 100                        | 2300                        |
| Kansas City Gas & Elec. Co.        | Fredonia, Kans.       |                      | 2 A-c. Recl.  | 300                        | 2300                        |
| "                                  | Kansas City, Mo.      | Pittsburg            | 1 A-c. Recl.  | 400                        | 73,000                      |
| "                                  | Buffville, Kans.      | Buffville            | 1 A-c. Recl.  | 300                        | 2500                        |
| Kansas City Power & Light Co.      | Kansas City, Mo.      |                      | 7 A-c. Recl.  | 200                        | 4400/2540                   |
| "                                  | "                     |                      | 2 A-c. Recl.  | 400                        | 11,950/6600                 |
| "                                  | "                     |                      | 2 A-c. Recl.  | 200                        | 15,000                      |
| "                                  | "                     |                      | 7 A-c. Recl.  | 400                        | 15,000                      |
| "                                  | "                     |                      | 1 A-c. Recl.  | 400                        | 4000/2300                   |
| "                                  | "                     |                      | 1 A-c. Recl.  | 200                        | 2540/4400                   |
| "                                  | "                     |                      | 1 A-c. Recl.  | 400                        | 33,000                      |
| "                                  | "                     |                      | 3 A-c. Recl.  | 200                        | 2600                        |
| "                                  | "                     |                      | 1 A-c. Recl.  | 400                        | 4000                        |
| "                                  | "                     | Station R            | 9 A-c. Recl.  | 200                        | 4800                        |
| "                                  | "                     |                      | 1 A-c. Recl.  | 400                        | 1500                        |
| "                                  | "                     | Holmes Park          | 1 A-c. Recl.  | 10                         | 33,000                      |
| "                                  | "                     | Station E            | 54 A-c. Recl. | 9-200, 45-400              | 2540                        |
| "                                  | "                     | Station D            | 21 A-c. Recl. | 200                        | 2540                        |
| "                                  | "                     |                      | 1 A-c. Recl.  | 10                         | 33,000                      |
| "                                  | "                     | Station R            | 2 A-c. Recl.  | 200                        | 4400                        |
| "                                  | "                     | 19th & Campbell Sts. | 6 A-c. Recl.  | 200                        | 2540                        |
| "                                  | "                     | F & P                | 78 A-c. Recl. | 72-300, 6-300              | 2540                        |
| "                                  | "                     |                      | 1 A-c. Recl.  | 400                        | 11,950/6900                 |
| "                                  | "                     | Station R            | 3 A-c. Recl.  | 200                        | 2540                        |
| Kansas Electric Power Co.          | Madison, Kansas       |                      | 2 A-c. Recl.  | 60                         | K-3669067                   |
| "                                  | Lawrence, Kansas      |                      | 7 A-c. Recl.  |                            | 2300                        |
| Kansas Gas & Electric Co.          | Wichita, Kan.         |                      | 1 A-c. Recl.  | 100                        | 11,000                      |
| "                                  | "                     | Voall                | 1 A-c. Recl.  | 20                         | 11,000                      |
| "                                  | "                     | Coffeyville          | 1 A-c. Recl.  | 100                        | 11,000                      |
| "                                  | "                     | Coffeyville          | 1 A-c. Recl.  | 30                         | 11,000                      |
| "                                  | "                     |                      | 1 A-c. Recl.  | 100                        | 12,470                      |
| Kentucky & West. Va. Pr. Co.       | Ashland, Ky.          | Amer. Roll. Mills    | 1 A-c. Recl.  | 100                        | 33,000                      |
| Kentucky Utilities Co.             | Louisville, Ky.       |                      | 3 A-c. Recl.  | 200                        | 4000                        |
| "                                  | "                     |                      | 2 A-c. Recl.  | 300                        | 2300                        |
| "                                  | Highsprint, Ky.       |                      | 4 A-c. Recl.  | 100                        | 4000                        |
| Laclede Gas Light Company          | St. Louis, Mo.        | Mound Levee          | 5 A-c. Recl.  | 1-500, 4-200               | 4150/2400                   |
| Lake Erie Pr. & Lt. Co.            | Sandusky, Ohio        |                      | 4 A-c. Recl.  | 200                        | 33,000                      |
| "                                  | "                     |                      | 1 A-c. Recl.  | 300                        | 22,000                      |



# AUTOMATIC STATIONS

| Company                           | Address                 | Station              | Apparatus     | Amp.<br>Capacity<br>(Each) | A-c.<br>Voltage<br>Outgoing |
|-----------------------------------|-------------------------|----------------------|---------------|----------------------------|-----------------------------|
| Lake Erie Pr. & Lt. Co.           | Sandusky, Ohio          |                      | 2 A-c. Recl.  | 80                         | 33,000                      |
| "                                 | "                       | Clyde                | 2 A-c. Recl.  | 150                        | 2300                        |
| "                                 | "                       | Lime Plant           | 8 A-c. Recl.  | 400                        | 2300                        |
| "                                 | "                       | Avery                | 1 A-c. Recl.  | 50                         | 6900                        |
| "                                 | "                       | Fostoria             | 1 A-c. Recl.  | 60                         | 33,000                      |
| "                                 | "                       | Fremont              | 1 A-c. Recl.  | 60                         | 33,000                      |
| "                                 | "                       |                      | 1 A-c. Recl.  | 60                         | 33,000                      |
| "                                 | "                       | Milan                | 1 A-c. Recl.  | 400                        | 2300                        |
| Lake Shore Elec. Rwy. Co.         | Fremont, Ohio           |                      | 1 A-c. Recl.  | 25                         | 2300                        |
| Long Island Lighting Co.          | Long Island City, N. Y. | Huntington           | 5 A-c. Recl.  |                            | 2300                        |
| "                                 | "                       | W. Hampton           | 2 A-c. Recl.  |                            | 2300                        |
| "                                 | "                       | Islip                | 4 A-c. Recl.  |                            | 2300                        |
| "                                 | "                       | Port Jefferson       | 4 A-c. Recl.  |                            | 2300                        |
| "                                 | "                       | Hampton Bay          | 1 A-c. Recl.  | 200                        | 2300                        |
| "                                 | "                       |                      | 1 A-c. Recl.  | 80                         | 2300                        |
| "                                 | "                       | Rock Glen, N. Y.     | 1 A-c. Recl.  | 80                         | 2300                        |
| "                                 | "                       | Garden City, L. I.   | 4 A-c. Recl.  | 300                        | 2300                        |
| "                                 | "                       | Farmingdale, L. I.   | 2 A-c. Recl.  | 150                        | 2200                        |
| "                                 | "                       | Glen Cove, L. I.     | 12 A-c. Recl. |                            | 2300                        |
| "                                 | "                       | Mattituck, N. Y.     | 4 A-c. Recl.  |                            | 2300                        |
| "                                 | "                       | Ronkonkoma, L. I.    | 1 A-c. Recl.  | 80                         | 2300                        |
| "                                 | "                       | St. James, L. I.     | 2 A-c. Recl.  | 80                         | 2300                        |
| "                                 | "                       | Bellmore, L. I.      | 2 A-c. Recl.  | 100                        | 2200                        |
| "                                 | "                       | Floral Park, L. I.   | 2 A-c. Recl.  | 1-100, 1-250               | 2300                        |
| "                                 | "                       | Floral Park, L. I.   | 1 A-c. Recl.  | 13.6                       | 2200                        |
| "                                 | "                       | S. Huntington, L. I. | 1 A-c. Recl.  | 200                        | 2300                        |
| "                                 | "                       | Baldwin, L. I.       | 6 A-c. Recl.  |                            | 2300                        |
| "                                 | "                       | S. Hampton, L. I.    | 8 A-c. Recl.  | 1-50, 7-200                | 2300                        |
| "                                 | "                       | Pt. Washington       | 5 A-c. Recl.  | 300                        | 2200                        |
| "                                 | "                       | Floral Park          | 2 A-c. Recl.  | 200                        | 2200                        |
| "                                 | "                       | Roslyn               | 1 A-c. Recl.  | 500                        | 2200                        |
| "                                 | "                       | Bellmore             | 7 A-c. Recl.  | 2-60, 1-75, 5-6.6          | 2200                        |
| "                                 | "                       | Farmingdale          | 2 A-c. Recl.  |                            | 2200                        |
| Louisville Gas & Electric Co.     | Louisville, Ky.         | Waterside            | 17 A-c. Recl. | 300                        | 4000/2300                   |
| "                                 | "                       | Waterside            | 27 A-c. Recl. | 300                        | 2300                        |
| "                                 | "                       |                      | 4 A-c. Recl.  | 1-800, 3-300               | 4000                        |
| "                                 | "                       |                      | 7 A-c. Recl.  | 300                        | 2300                        |
| "                                 | "                       | Gas Pumping          | 6 A-c. Recl.  | 1-25, 4-300, 1-800         | 4000                        |
| "                                 | "                       | Western              | 14 A-c. Recl. | 13-300, 1-800              | 4000                        |
| "                                 | "                       | Bear Grass           | 2 A-c. Recl.  | 300                        | 4000/2300                   |
| "                                 | "                       | Gas Pumping          | 6 A-c. Recl.  | 1-125, 1-800, 4-300        | 4000/2300                   |
| "                                 | "                       | Waterside            | 4 A-c. Recl.  | 300                        | 4000/2300                   |
| Luzerne County Gas & Electric Co. | Wilkesbarre, Pa.        | Plymouth             | 1 A-c. Recl.  | 100                        | 13,200                      |
| "                                 | "                       | Kingston             | 2 A-c. Recl.  | 100                        | 2300                        |
| "                                 | "                       | Kingston             | 7 A-c. Recl.  |                            | 2300                        |
| "                                 | "                       | Nanticoke            | 7 A-c. Recl.  |                            | 2300                        |
| "                                 | "                       | Forty Fort           | 2 A-c. Recl.  | 100                        | 2300                        |
| Lynn Gas & Electric Co.           | Lynn, Mass.             | Swampscott           | 4 A-c. Recl.  | 3-25, 1-80                 | 4000                        |
| Malden Electric Co.               | Malden, Mass.           | Melrose              | 1 A-c. Recl.  | 800                        | 2300                        |
| "                                 | "                       | Medford              | 1 A-c. Recl.  | 500                        | 2300                        |
| "                                 | "                       | Medford              | 2 A-c. Recl.  | 200                        | 2300                        |
| "                                 | "                       | Everett              | 7 A-c. Recl.  | 1-100, 5-200, 1-500        | 2300                        |
| "                                 | "                       | Medford              | 1 A-c. Recl.  | 300                        | 2300                        |
| "                                 | "                       | Melrose              | 5 A-c. Recl.  | 2-600, 3-300               | 2300                        |
| "                                 | "                       |                      | 1 A-c. Recl.  | 300                        | 22,000                      |
| "                                 | Everett, Mass.          |                      | 1 A-c. Recl.  | 200                        | 2300                        |
| Merchants Coal Corp.              | Tunnelton, W. Va.       | No. 1 and No. 2      | 3 A-c. Recl.  | 1-60, 1-85, 1-300          | 2300                        |
| Metropolitan Edison Co.           | Realty, Pa.             |                      | 1 A-c. Recl.  | 200                        | 2300                        |
| "                                 | "                       |                      | 2 A-c. Recl.  | 150                        | 2300                        |
| "                                 | Reading, Pa.            |                      | 1 A-c. Recl.  | 200                        | 2300                        |
| Mexican Light & Power Co.         | Mexico City, Mexico     |                      | 1 A-c. Recl.  | 175                        | 22,000                      |
| "                                 | "                       |                      | 1 A-c. Recl.  | 400                        | 25,000                      |
| "                                 | "                       |                      |               | 200                        | 4160                        |
| Miami Beach Electric Co.          | Miami, Fla.             | Hialeah              | 6 A-c. Recl.  | 150                        | 4000                        |
| Miami Electric Light & Power Co.  | Miami, Fla.             |                      | 1 A-c. Recl.  | 300                        | 4000                        |
| "                                 | "                       | Little River         | 1 A-c. Recl.  | 300                        | 4000                        |
| "                                 | "                       | Cocoanut Grove       | 3 A-c. Recl.  | 300                        | 4000                        |
| "                                 | "                       | Buena Vista          | 4 A-c. Recl.  | 300                        | 4000                        |



# GENERAL ELECTRIC

| Company                             | Address                  | Station            | Apparatus     | Amp.<br>Capacity<br>(Each) | A-c.<br>Voltage<br>Outgoing |
|-------------------------------------|--------------------------|--------------------|---------------|----------------------------|-----------------------------|
| Miami Rwy. Co.                      | Miami, Fla.              | Miami Rwy.         | 1 A-c. Recl.  | 400                        | 5000                        |
| "                                   | "                        | Miami Rwy.         | 67 A-c. Recl. | 400-1200                   | 4000/2300                   |
| Minnesota Power & Light Co.         | Duluth, Minn.            |                    | 12 A-c. Recl. | 500 Kv-a.                  | 4250                        |
| Missouri Gas & Elec. Co.            |                          |                    | 1 A-c. Recl.  | 10                         | 11,400/6600                 |
| Missouri Gas & Elec. Service Co.    | Henrietta, Mo.           |                    | 1 A-c. Recl.  | 20                         | 13,200                      |
| "                                   | Terrelview, Mo.          |                    | 1 A-c. Recl.  | 15                         | 13,200                      |
| "                                   | Richmond, Mo.            |                    | 4 A-c. Recl.  | 1-40, 3-80                 | 2300                        |
| Monmouth Lighting Co.               | Lexington, Mo.           | Fairview           | 2 A-c. Recl.  | 27                         | 13,200                      |
| "                                   | Matawan, N. J.           |                    | 1 A-c. Recl.  | 300                        | 2300                        |
| "                                   | Atlantic Highl'ds, N. J. |                    | 1 A-c. Recl.  | 150                        | 2300                        |
| Municipal Gas Co.                   | Campbells Junc., N.J.    |                    | 1 A-c. Recl.  | 150                        | 2300                        |
| "                                   | Albany, N. Y.            |                    | 2 A-c. Recl.  | 168                        | 6900                        |
| "                                   | "                        |                    | 1 A-c. Recl.  | 30                         | 6600                        |
| Narragansett Elec. Lt. Co.          | Providence, R. I.        |                    | 1 A-c. Recl.  | 300                        | 2300                        |
| Nebraska Gas & Electric Co.         | Oakland, Neb.            |                    | 1 A-c. Recl.  | 40                         | 2300                        |
| Nebraska Power Co.                  | Omaha, Neb.              |                    | 3 A-c. Recl.  | 300                        | 2300                        |
| "                                   | "                        |                    | 3 A-c. Recl.  |                            | 7500                        |
| New Bedford Gas & Edison Light Co.  | New Bedford, Mass.       | Mattapoisett.      | 1 A-c. Recl.  | 150                        | 2300                        |
| "                                   | "                        | Harborview.        | 2 A-c. Recl.  | 20                         | 22,000                      |
| Newcastle Electric Co.              | Newcastle, Pa.           | Harborview.        | 1 A-c. Recl.  | 100                        | 2300                        |
| "                                   | "                        | Cedar St.          | 2 A-c. Recl.  | 200                        | 2300                        |
| "                                   | "                        | Columbiana         | 1 A-c. Recl.  | 400                        | 2300                        |
| New Jersey Power & Light Co.        | Washington, N. J.        | Poland Ave.        | 2 A-c. Recl.  | 800                        | 2300                        |
| "                                   | "                        |                    | 3 A-c. Recl.  | 1-50, 1-80, 1-150          | 2300                        |
| "                                   | "                        | Fl'm'gt'n & Oxford | 2 A-c. Recl.  | 50                         | 2300                        |
| New Orleans Rwy. & Lt. Co.          | New Orleans, La.         | Flemington.        | 3 A-c. Recl.  | 50                         | 2300                        |
| New River Development Co.           | Fielddale, Va.           |                    | 2 A-c. Recl.  | 300                        | 6600                        |
| N. Y. State Gas & Elec. Corp.       | Walton, N. Y.            |                    | 2 A-c. Recl.  | 100                        | 33,000                      |
| Northampton Electric Light Co.      | Northampton, Mass.       | Whiting.           | 2 A-c. Recl.  | 300                        | 2400                        |
| Northern Indiana Public Service Co. | Hammond, Ind.            |                    | 2 A-c. Recl.  | 250                        | 2300                        |
| "                                   | "                        |                    | 3 A-c. Recl.  | 1-125, 2-200               | 1-11,000                    |
| "                                   | "                        |                    | 1 A-c. Recl.  | 200                        | 2-4000                      |
| "                                   | "                        | St. Paul.          | 4 A-c. Recl.  | 400                        | 2300                        |
| "                                   | "                        | So. Hammond.       | 6 A-c. Recl.  | 1-200, 1-400               | 4000                        |
| "                                   | "                        | Ind. Harbor.       | 9 A-c. Recl.  |                            | 4000                        |
| "                                   | "                        | Whiting.           | 2 A-c. Recl.  | 1-63, 1-173                | 11,000/4000                 |
| North Missouri Power Co.            | Hamilton, Mo.            | Indiana Harbor.    | 1 A-c. Recl.  | 200                        | 4000                        |
| Northern New York Utilities Co.     | Lowville, N. Y.          | Hamilton Central.  | 1 A-c. Recl.  | 20                         | 13,200                      |
| "                                   | Croghan, N. Y.           |                    | 2 A-c. Recl.  | 500                        | 2300                        |
| "                                   | Watertown, N. Y.         | Taylorville.       | 2 A-c. Recl.  | 50                         | 11,000                      |
| Northern States Power Co.           | Minneapolis, Minn.       |                    | 4 A-c. Recl.  | 2-630, 1-800               | 2300                        |
| "                                   | Stillwater, Minn.        |                    | 4 A-c. Recl.  | 400                        | 4000/2300                   |
| "                                   | Minneapolis, Minn.       | Oak Park.          | 3 A-c. Recl.  | 2-400, 1-1200              | 4000/2300                   |
| "                                   | "                        | Hutchinson.        | 2 A-c. Recl.  | 150                        | 2300                        |
| "                                   | "                        | Ethan, S. D.       | 1 A-c. Recl.  | 20                         | 37,000                      |
| "                                   | "                        | Centerville, S. D. | 1 A-c. Recl.  | 20                         | 37,000                      |
| "                                   | "                        | No. Common.        | 16 A-c. Recl. | 1-150, 1-300, 1-800        |                             |
| "                                   | "                        |                    |               | 13-200                     | 2300                        |
| "                                   | "                        |                    | 4 A-c. Recl.  | 2-300, 2-400               | 4000                        |
| "                                   | "                        | No. Common.        | 4 A-c. Recl.  | 300, 800                   | 4000                        |
| "                                   | "                        | No. Common.        | 7 A-c. Recl.  | 300                        | 2300                        |
| "                                   | "                        |                    | 2 A-c. Recl.  | 300                        | 4000                        |
| "                                   | "                        |                    | 4 A-c. Recl.  | 300                        | 4000/2300                   |
| "                                   | "                        | Nicolett.          | 2 A-c. Recl.  | 300                        | 4000                        |
| "                                   | "                        | University.        | 2 A-c. Recl.  | 150                        | 4000                        |
| Northwestern Improvement Co.        | St. Paul, Minn.          | Snelling Ave.      | 1 A-c. Recl.  | 300                        | 4000                        |
| "                                   | Roslyn, Wash.            | Mines 2, 4, 5, 7.  | 2 A-c. Recl.  | 150                        | 13,200                      |
| Northwestern Pr. & Lt. Co.          | Port Angeles, Wash.      | Mines 2, 4, 5, 7.  | 2 A-c. Recl.  | 1-252, 1-375               | 2300                        |
| "                                   | "                        |                    | 1 A-c. Recl.  | 50                         | 2300                        |
| Ohio Power Company                  | Canton, Ohio             | Falcon.            | 2 A-c. Recl.  | 400                        | 23,000                      |
| "                                   | "                        | Leavittsburg.      | 2 A-c. Recl.  | 400                        | 23,000                      |
| "                                   | "                        | New Fairhope.      | 2 A-c. Recl.  | 150                        | 22,000                      |
| "                                   | "                        | Bryan Ave.         | 2 A-c. Recl.  | 150                        | 22,000                      |
| Ohio Public Service Co.             | Lorain, Ohio             | Harrisburg Rd.     | 4 A-c. Recl.  | 150                        | 22,000                      |
| "                                   | Alliance, Ohio.          | Edgewater.         | 2 A-c. Recl.  | 400                        | 4000                        |
| "                                   | "                        |                    | 1 A-c. Recl.  | 300                        | 2300                        |



# AUTOMATIC STATIONS

| Company                              | Address                 | Station                          | Apparatus     | Amp.<br>Capacity<br>(Each) | A-c.<br>Voltage<br>Outgoing |
|--------------------------------------|-------------------------|----------------------------------|---------------|----------------------------|-----------------------------|
| Ohio Public Service Co.....          | Mansfield, Ohio.....    | Surrey Road.....                 | 3 A-c. Recl.  | 800                        | 15,000                      |
| "                                    | Amherst, Ohio.....      | "                                | 2 A-c. Recl.  | 200                        | 2300                        |
| "                                    | Warren, Ohio.....       | "                                | 4 A-c. Recl.  | 600                        | 2300                        |
| "                                    | Ashland, Ohio.....      | "                                | 1 A-c. Recl.  | 200                        | 15,000                      |
| Oklahoma Gas & Electric Co.....      | Oklahoma City, Okla..   | Parkplace.....                   | 2 A-c. Recl.  | 200                        | 2300                        |
| "                                    | "                       | Bristol.....                     | 2 A-c. Recl.  | 100                        | 13,200                      |
| "                                    | "                       | Mande.....                       | 1 A-c. Recl.  | 50                         | 13,200                      |
| "                                    | "                       | Seminole.....                    | 2 A-c. Recl.  | 100                        | 13,200                      |
| "                                    | "                       | Middleton and<br>Ponca City..... | 2 A-c. Recl.  | 100                        | 13,200                      |
| Oklahoma General Power Co.....       | Petau, Okla.....        | "                                | 1 A-c. Recl.  | 100                        | 13,200                      |
| Otter Tail Power Company.....        | Fergus Falls, Minn....  | "                                | 1 A-c. Recl.  | 10                         | .....                       |
| "                                    | "                       | "                                | 1 A-c. Recl.  | 30                         | 38,100                      |
| Pacific Gas & Electric Co.....       | San Francisco, Cal..... | "                                | 6 A-c. Recl.  | 60                         | 4000                        |
| "                                    | Hamilton City, Cal....  | "                                | 1 A-c. Recl.  | 50                         | 11,000                      |
| "                                    | San Francisco, Cal....  | "                                | 6 A-c. Recl.  | 50                         | 11,000                      |
| "                                    | "                       | "                                | 1 A-c. Recl.  | 400                        | 6000                        |
| "                                    | "                       | "                                | 1 A-c. Recl.  | 150                        | 2300                        |
| "                                    | "                       | "                                | 1 A-c. Recl.  | 80                         | 11,000                      |
| "                                    | "                       | "                                | 2 A-c. Recl.  | 400                        | 2300                        |
| "                                    | "                       | "                                | 1 A-c. Recl.  | 300                        | 11,000                      |
| "                                    | "                       | "                                | 2 A-c. Recl.  | 80                         | 11,000                      |
| "                                    | "                       | "                                | 2 A-c. Recl.  | 1-50, 1-125                | 12,000                      |
| "                                    | "                       | "                                | 1 A-c. Recl.  | 25                         | 12,000                      |
| "                                    | "                       | "                                | 1 A-c. Recl.  | 60                         | 2400                        |
| Penn. Central Light & Power Co.....  | Altoona, Pa.....        | "                                | 2 A-c. Recl.  | 175                        | 2300                        |
| "                                    | "                       | "                                | 1 A-c. Recl.  | 250                        | 2300                        |
| "                                    | "                       | Eldorado.....                    | 1 A-c. Recl.  | 100                        | 6600                        |
| "                                    | "                       | Eldorado.....                    | 3 A-c. Recl.  | 100                        | 2300                        |
| "                                    | "                       | "                                | 3 A-c. Recl.  | .....                      | 2300                        |
| "                                    | "                       | Spangler.....                    | 1 A-c. Recl.  | 100                        | 6600                        |
| "                                    | "                       | "                                | 1 A-c. Recl.  | 100                        | 11,000/6600                 |
| "                                    | "                       | "                                | 4 A-c. Recl.  | .....                      | 2300                        |
| Penn. Edison Co.....                 | Easton, Pa.....         | "                                | 1 A-c. Recl.  | 200                        | 2300                        |
| Penn. Power & Light Co.....          | Sellersville, Pa.....   | "                                | 1 A-c. Recl.  | 300                        | 11,000                      |
| "                                    | Williamsport, Pa.....   | "                                | 1 A-c. Recl.  | 200                        | 2300/4000                   |
| "                                    | Macungie, Pa.....       | "                                | 1 A-c. Recl.  | 100                        | 11,000                      |
| "                                    | Montoursville, Pa.....  | "                                | 1 A-c. Recl.  | 300                        | 11,000                      |
| "                                    | Williamsport, Pa.....   | "                                | 1 A-c. Recl.  | 500                        | 2300/4000                   |
| "                                    | Hawley, Pa.....         | "                                | 1 A-c. Recl.  | 500                        | 2300/4000                   |
| "                                    | Ashley, Pa.....         | "                                | 1 A-c. Recl.  | 500                        | 2300/4000                   |
| "                                    | Williamsport, Pa.....   | "                                | 1 A-c. Recl.  | 500                        | 2300/4000                   |
| "                                    | Wilkesbarre, Pa.....    | "                                | 1 A-c. Recl.  | 500                        | 4000                        |
| "                                    | Honesdale, Pa.....      | "                                | 1 A-c. Recl.  | 200                        | 2300                        |
| "                                    | Sellersville, Pa.....   | "                                | 1 A-c. Recl.  | 150                        | 11,430                      |
| "                                    | Allentown, Pa.....      | Montgomery.....                  | 1 A-c. Recl.  | 150                        | 4000                        |
| "                                    | Coopersburg, Pa.....    | "                                | 1 A-c. Recl.  | 250                        | 4000                        |
| "                                    | Pennsburg, Pa.....      | "                                | 1 A-c. Recl.  | 250                        | 4000                        |
| "                                    | Muncy, Pa.....          | "                                | 3 A-c. Recl.  | 400                        | 11,000                      |
| "                                    | Kimbles, Pa.....        | "                                | 1 A-c. Recl.  | 300                        | 13,200                      |
| "                                    | Orinrod, Pa.....        | "                                | 6 A-c. Recl.  | 400                        | 2300                        |
| Penn. Public Service Corp.....       | Johnstown, Pa.....      | Blairsville.....                 | 7 A-c. Recl.  | 400                        | 2300                        |
| "                                    | "                       | Moxham.....                      | 9 A-c. Recl.  | 200, 600, 800              | 2300/11,000                 |
| "                                    | "                       | Huron St. No. 2....              | 8 A-c. Recl.  | 200, 600                   | 2300/11,000                 |
| "                                    | "                       | Division St. No. 1..             | 1 A-c. Recl.  | 125                        | 22,000                      |
| "                                    | "                       | Reeder St.....                   | 2 A-c. Recl.  | 400                        | 2300                        |
| Philadelphia Elec. Co.....           | Philadelphia, Pa.....   | "                                | 1 A-c. Recl.  | 400                        | 2300                        |
| Phila. & Reading Coal & Iron Co..... | Mt. Carmel Jct., Pa.... | "                                | 1 A-c. Recl.  | 400                        | 2300                        |
| Phila. Suburban Gas & Electric Co... | Philadelphia, Pa.....   | Alaska Colliery.....             | 2 A-c. Recl.  | 150, 200                   | 2300                        |
| "                                    | "                       | Morrisville.....                 | 2 A-c. Recl.  | 150                        | 2300                        |
| "                                    | "                       | Wyncote.....                     | 1 A-c. Recl.  | 60                         | 2300                        |
| "                                    | "                       | Malvern.....                     | 2 A-c. Recl.  | .....                      | .....                       |
| "                                    | "                       | Hatboro.....                     | 3 A-c. Recl.  | 200                        | 2300                        |
| "                                    | "                       | Spring City.....                 | 2 A-c. Recl.  | 50                         | 2300                        |
| "                                    | "                       | Oreland.....                     | 10 A-c. Recl. | 65-250                     | 2300                        |
| "                                    | "                       | Phoenixville.....                | 1 A-c. Recl.  | 150                        | 2300                        |
| Pinellas County Power Co.....        | St. Petersburg Fla..... | "                                | "             | "                          | "                           |



# GENERAL ELECTRIC

| Company                                 | Address                  | Station                               | Apparatus     | Amp.<br>Capacity<br>(Each) | A-c.<br>Voltage<br>Outgoing |
|---|--------------------------|---------------------------------------|---------------|----------------------------|-----------------------------|
| Portland Electric Power Co.....         | Portland, Ore.....       | Woodstock.....                        | 3 A-c. Recl.  | 300                        | 2300                        |
| "                                       | "                        | 29th and Clackmas.                    | 1 A-c. Recl.  | 300                        | 2300                        |
| "                                       | "                        | 29th and Clackmas.                    | 1 A-c. Recl.  | 300                        | 2300                        |
| "                                       | "                        | Beaverton.....                        | 2 A-c. Recl.  | 40 and 150                 | 2400                        |
| "                                       | "                        | Oregon City.....                      | 1 A-c. Recl.  | 300                        | 2300                        |
| "                                       | "                        | Salem.....                            | 1 A-c. Recl.  | 150                        | 2300                        |
| Potomac Edison Co.....                  | Cumberland, Md.....      | .....                                 | 1 A-c. Recl.  | 400                        | 4000                        |
| Potomac Electric Power Co.....          | Washington, D. C.....    | 14th and C Sts.....                   | 7 A-c. Recl.  | 300, 400                   | 2500                        |
| Public Service Co. of Colo.....         | Denver, Colo.....        | South Substation..                    | 1 A-c. Recl.  | .....                      | 4000                        |
| "                                       | "                        | Harrison St.....                      | 1 A-c. Recl.  | 725                        | 4000                        |
| "                                       | "                        | Harrison St.....                      | 12 A-c. Recl. | 300                        | 2300                        |
| "                                       | "                        | Gates.....                            | 8 A-c. Recl.  | .....                      | 13,000                      |
| Public Service, Electric & Gas Co....   | Newark, N. J.....        | West.....                             | 3 A-c. Recl.  | .....                      | 13,000                      |
| "                                       | "                        | No. 48.....                           | 2 A-c. Recl.  | 400                        | 4150                        |
| "                                       | "                        | Mt. Holly.....                        | 1 A-c. Recl.  | 200                        | 4150                        |
| "                                       | "                        | No. 86.....                           | 1 A-c. Recl.  | 400                        | 6600                        |
| "                                       | "                        | No. 89.....                           | 1 A-c. Recl.  | 400                        | 6600                        |
| "                                       | "                        | Miller St.....                        | 1 A-c. Recl.  | 400                        | 6600                        |
| "                                       | "                        | Burlington.....                       | 1 A-c. Recl.  | 100                        | 4150                        |
| "                                       | "                        | Norfolk St.....                       | 1 A-c. Recl.  | 200                        | 4000                        |
| "                                       | "                        | Wall St.....                          | 1 A-c. Recl.  | .....                      | 4150                        |
| "                                       | "                        | Delair.....                           | 1 A-c. Recl.  | .....                      | 2400                        |
| "                                       | "                        | Fernwood.....                         | 1 A-c. Recl.  | .....                      | .....                       |
| "                                       | "                        | Miller St.....                        | 1 A-c. Recl.  | .....                      | .....                       |
| "                                       | "                        | No. 89.....                           | 6 A-c. Recl.  | .....                      | .....                       |
| "                                       | "                        | .....                                 | 1 A-c. Recl.  | 400                        | 4000                        |
| "                                       | "                        | .....                                 | 1 A-c. Recl.  | 600                        | 15,000                      |
| "                                       | "                        | Chester.....                          | 1 A-c. Recl.  | 400                        | 4150                        |
| "                                       | "                        | .....                                 | 1 A-c. Recl.  | 300                        | 6600                        |
| "                                       | "                        | Miller St.....                        | 1 A-c. Recl.  | 400                        | 6600                        |
| "                                       | "                        | No. 95.....                           | 1 A-c. Recl.  | .....                      | 4150                        |
| Public Service Co. of No. Illinois..... | Elmhurst, Ill.....       | .....                                 | 8 A-c. Recl.  | 200                        | 4000                        |
| "                                       | Evanston, Ill.....       | .....                                 | 1 A-c. Recl.  | 200                        | 4000                        |
| "                                       | Calumet City, Ill.....   | .....                                 | 2 A-c. Recl.  | 200                        | 4000                        |
| "                                       | Desplaines, Ill.....     | .....                                 | 1 A-c. Recl.  | 200                        | 4000                        |
| "                                       | Chicago, Ill.....        | Lemont.....                           | 5 A-c. Recl.  | .....                      | 4000                        |
| "                                       | Barrington, Ill.....     | No. 84.....                           | 5 A-c. Recl.  | 200, 400                   | 2300                        |
| "                                       | "                        | Glencoe.....                          | 1 A-c. Recl.  | 200                        | 4000                        |
| "                                       | Chicago, Ill.....        | Zion City.....                        | 1 A-c. Recl.  | 200                        | 4000                        |
| "                                       | "                        | McHenry.....                          | 1 A-c. Recl.  | 200                        | 4000                        |
| "                                       | "                        | Bellwood.....                         | 2 A-c. Recl.  | 200                        | 4000                        |
| "                                       | "                        | North Chicago.....                    | 2 A-c. Recl.  | 200                        | 4000                        |
| "                                       | Maywood, Ill.....        | Bellwood.....                         | 1 A-c. Recl.  | 400                        | 4000                        |
| "                                       | Joliet, Ill.....         | J-18.....                             | 2 A-c. Recl.  | 400                        | 4000                        |
| "                                       | Thornton, Ill.....       | F-37.....                             | 1 A-c. Recl.  | 400                        | 4000                        |
| "                                       | "                        | Westmont.....                         | 1 A-c. Recl.  | 400                        | 4000                        |
| "                                       | Lyons, Ill.....          | .....                                 | 1 A-c. Recl.  | 400                        | 4000                        |
| "                                       | Arlington Hts., Ill..... | .....                                 | 1 A-c. Recl.  | 400                        | 4000                        |
| "                                       | Chillicothe, Ill.....    | L-18.....                             | 1 A-c. Recl.  | 400                        | 4000                        |
| "                                       | Libertyville, Ill.....   | .....                                 | 1 A-c. Recl.  | 200                        | 4000                        |
| "                                       | Chicago, Ill.....        | .....                                 | 1 A-c. Recl.  | 200                        | 4000                        |
| Puget Sound Power & Light Co.....       | Seattle, Wash.....       | .....                                 | 15 A-c. Recl. | 200                        | 4000                        |
| "                                       | "                        | .....                                 | 3 A-c. Recl.  | 1-400                      | 4000/2300                   |
| "                                       | "                        | Pasadena.....                         | 1 A-c. Recl.  | 2-250                      | 2300                        |
| "                                       | "                        | Kalama.....                           | 1 A-c. Recl.  | 400                        | 2600                        |
| "                                       | "                        | .....                                 | 1 A-c. Recl.  | 100                        | 6600                        |
| "                                       | "                        | University.....                       | 1 A-c. Recl.  | 300                        | 2300                        |
| "                                       | "                        | University.....                       | 2 A-c. Recl.  | 400                        | .....                       |
| "                                       | "                        | University.....                       | 1 A-c. Recl.  | 800                        | .....                       |
| "                                       | "                        | University.....                       | 1 A-c. Recl.  | 200                        | 4500                        |
| "                                       | "                        | University.....                       | 4 A-c. Recl.  | 200                        | 2600                        |
| "                                       | "                        | University.....                       | 1 A-c. Recl.  | .....                      | 13,200                      |
| "                                       | "                        | .....                                 | 1 A-c. Recl.  | 300                        | 15,000                      |
| "                                       | "                        | Pasadena.....                         | 1 A-c. Recl.  | 220                        | 13,200                      |
| "                                       | "                        | .....                                 | 1 A-c. Recl.  | 200                        | 2600                        |
| "                                       | "                        | .....                                 | 2 A-c. Recl.  | 200                        | 2300/4000                   |
| "                                       | "                        | .....                                 | 6 A-c. Recl.  | 300                        | 2300/4000                   |
| "                                       | "                        | .....                                 | 1 A-c. Recl.  | 300                        | 2300                        |
| "                                       | "                        | East Pine St. and<br>Pasadena Pl..... | 6 A-c. Recl.  | 300                        | 2600                        |



# AUTOMATIC STATIONS

| Company                                  | Address             | Station             | Apparatus     | Amp.<br>Capacity<br>(Each) | A-c.<br>Voltage<br>Outgoing |
|--|---------------------|---------------------|---------------|----------------------------|-----------------------------|
| Queensboro Gas & Electric Co.            | Lynbrook, L. I.     | Far Rockaway        | 5 A-c. Recl.  | 400                        | 2300                        |
| "  | "                   | "                   | 1 A-c. Recl.  | 400                        | 2300                        |
| Republic Iron & Steel Co.                | Birmingham, Ala.    | Sayreton Mine       | 1 A-c. Recl.  | 50                         | 6600                        |
| Richmond, Fredericksburg & Potomac R. R. | Fredericksburg, Va. | "                   | 2 A-c. Recl.  | 30                         | 125                         |
| Roanoke Ry. & Electric Co.               | Roanoke, Va.        | "                   | 2 A-c. Recl.  | 100                        | 4150/2400                   |
| "  | "                   | "                   | 2 A-c. Recl.  | 50                         | 11,000                      |
| Rochester Gas & Electric Co.             | Rochester, N. Y.    | No. 38              | 3 A-c. Recl.  | 200                        | 4150/2400                   |
| "  | "                   | "                   | 1 A-c. Recl.  | 300                        | 4150/2400                   |
| "  | "                   | No. 33              | 2 A-c. Recl.  | 100                        | 4150/2400                   |
| "  | "                   | Canandaigua         | 3 A-c. Recl.  | 100, 400                   | 2300                        |
| "  | "                   | Sodus               | 1 A-c. Recl.  | 400                        | 2300                        |
| "  | "                   | No. 34              | 2 A-c. Recl.  | "                          | 4150                        |
| "  | "                   | No. 38              | 4 A-c. Recl.  | 400                        | 11,000                      |
| "  | "                   | Victor              | 1 A-c. Recl.  | 300                        | 4150                        |
| "  | "                   | East Rochester      | 3 A-c. Recl.  | 400                        | 7500                        |
| "  | "                   | No. 34              | 1 A-c. Recl.  | 300                        | 4150/2400                   |
| Rockland Light & Power Co.               | Haverstraw, N. Y.   | "                   | 1 A-c. Recl.  | 300                        | 4000/2000                   |
| "  | "                   | West Haverstraw     | 4 A-c. Recl.  | 2-100, 2-60                | 4000/2300                   |
| "  | "                   | West Nyack          | 1 A-c. Recl.  | 125                        | 2300                        |
| "  | Nyack, N. Y.        | Orangeburg          | 1 A-c. Recl.  | 60                         | 2300                        |
| "  | W. Nyack, N. Y.     | "                   | 5 A-c. Recl.  | "                          | 4000/2300                   |
| "  | Haverstraw, N. Y.   | West Haverstraw     | 1 A-c. Recl.  | 100                        | 4000/2300                   |
| "  | "                   | Orangeburg          | 2 A-c. Recl.  | 2-325, 1-125               | 4000                        |
| Sag Harbor Gas & Electric Corp.          | Sag Harbor, N. Y.   | "                   | 2 A-c. Recl.  | 1-38, 1-63                 | 2300                        |
| St. Joseph Lead Co.                      | Boune Terre, Mo.    | "                   | 1 A-c. Recl.  | 400                        | 7200                        |
| St. Joseph Rwy., Lt., Ht. & Pr. Co.      | St. Joseph, Mo.     | "                   | 1 A-c. Recl.  | 40                         | 11,000                      |
| "  | "                   | "                   | 1 A-c. Recl.  | 80                         | 6600                        |
| St. Lawrence County Utilities Co.        | Richville, N. Y.    | "                   | 1 A-c. Recl.  | 300                        | 35,000                      |
| Savannah Electric & Power Co.            | Savannah, Ga.       | "                   | 4 A-c. Recl.  | 200                        | 2300                        |
| "  | "                   | Riverside Plant     | 1 A-c. Recl.  | 200                        | 2300                        |
| "  | "                   | "                   | 4 A-c. Recl.  | 20                         | 13,200                      |
| Sayre Electric Company                   | Milan, Pa.          | "                   | 1 A-c. Recl.  | 200                        | 33,000                      |
| Scranton Electric Co.                    | Scranton, Pa.       | Scranton            | 1 A-c. Recl.  | "                          | 220                         |
| Shannopin Coal Company                   | Pittsburgh, Pa.     | A.                  | 6 A-c. Recl.  | 40-500                     | 6900                        |
| Sioux City Gas & Electric Co.            | Storm Lake, Ia.     | "                   | 1 A-c. Recl.  | 150                        | 33,000                      |
| South Public Utilities Co.               | Charlotte, N. C.    | "                   | 1 A-c. Recl.  | 400                        | 2300                        |
| Southeastern Mass. Pr. & Elec. Co.       | Boston, Mass.       | Buzzards Bay        | 2 A-c. Recl.  | 57                         | 22,000                      |
| Southern California Edison Co.           | Los Angeles, Cal.   | "                   | 11 A-c. Recl. | 300                        | 4000                        |
| "  | "                   | "                   | 75 A-c. Recl. | 150                        | 4000                        |
| Southern Colorado Pr. Co.                | Pueblo, Col.        | South               | 2 A-c. Recl.  | 2600                       | 2300                        |
| "  | "                   | East                | 1 A-c. Recl.  | 2600                       | 2300                        |
| "  | "                   | Florence            | 1 A-c. Recl.  | 2600                       | 2300                        |
| Southwestern Light & Power Co.           | Mangitou, Okla.     | "                   | 1 A-c. Recl.  | 26                         | 13,200                      |
| Spreckels, J. D. & A. C., Securities Co. | San Francisco, Cal. | Pampanga Sugar Mill | "             | "                          | "                           |
| "  | "                   | Philippine Islands  | 2 A-c. Recl.  | 1-15, 1-30                 | 6600                        |
| Suburban Gas & Electric Co.              | Revere, Mass.       | Revere              | 10 A-c. Recl. | 200, 300                   | 2300                        |
| Sugar Pine Lumber Co.                    | Pinedale, Cal.      | "                   | 1 A-c. Recl.  | 100                        | 22,000                      |
| Swift & Co.                              | Barton, Fla.        | "                   | 2 A-c. Recl.  | 200                        | 2300                        |
| Tampa Electric Co.                       | Tampa, Fla.         | "                   | 10 A-c. Recl. | 200, 300, 400              | 2300                        |
| "  | "                   | "                   | 5 A-c. Recl.  | 200                        | 13,200                      |
| Taylor Wharton Ir. & Steel Co.           | High Bridge, N. J.  | "                   | 3 A-c. Recl.  | 400/600                    | 2300                        |
| Tennessee Power Co.                      | Chattanooga, Tenn.  | Athens              | 2 A-c. Recl.  | 150                        | 2300                        |
| "  | "                   | Lenoir City         | 2 A-c. Recl.  | 30                         | 11,400                      |
| "  | "                   | Sweetwater          | 2 A-c. Recl.  | 30                         | 6600                        |
| Texas Power & Light Co.                  | Dallas, Texas       | "                   | 2 A-c. Recl.  | 125                        | 2300                        |
| "  | "                   | "                   | 6 A-c. Recl.  | 400                        | 12,000                      |
| "  | "                   | Martens             | 2 A-c. Recl.  | 27                         | 22,000                      |
| "  | "                   | Dennison            | 2 A-c. Recl.  | 57                         | 6600                        |
| "  | "                   | Carrollton          | 2 A-c. Recl.  | 25                         | 4160                        |
| "  | "                   | Lewisville          | 1 A-c. Recl.  | 25                         | 4160                        |
| Texas Public Utilities Co.               | San Marcos, Texas   | "                   | 3 A-c. Recl.  | 80, 30                     | 2500                        |
| "  | Bastrop, Texas      | "                   | 2 A-c. Recl.  | 15, 40                     | 2500                        |
| The Dayton Power & Light Co.             | "                   | "                   | 2 A-c. Recl.  | 60                         | 33,000                      |
| The Detroit Edison Co.                   | Detroit, Mich.      | Savannah            | 3 A-c. Recl.  | "                          | 2300                        |
| "  | "                   | Livernois           | 3 A-c. Recl.  | "                          | 2300                        |



# GENERAL ELECTRIC

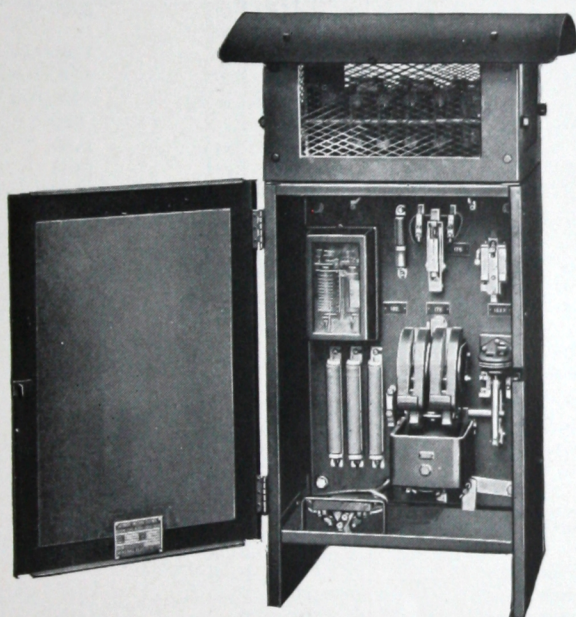
| Company                               | Address                   | Station              | Apparatus     | Amp.<br>Capacity<br>(Each) | A-c.<br>Voltage<br>Outgoing |
|---------------------------------------|---------------------------|----------------------|---------------|----------------------------|-----------------------------|
| The Detroit Edison Co.....            | Detroit, Mich.....        |                      | 6 A-c. Recl.  | 300                        | 4600                        |
| The Milwaukee Elec. Ry. & Lt. Co....  | Milwaukee, Wis.....       | Springdale.....      | 2 A-c. Recl.  | 10                         | 5000                        |
| "                                     | "                         | Oakland Ave.....     | 4 A-c. Recl.  | 435                        | 4000                        |
| "                                     | "                         | No. Milwaukee.....   | 2 A-c. Recl.  | 100                        | 4000                        |
| "                                     | "                         | No. Milwaukee.....   | 3 A-c. Recl.  | 135                        | 4000                        |
| "                                     | "                         | No. Milwaukee.....   | 2 A-c. Recl.  | 100                        | 4000                        |
| "                                     | "                         | No. Milwaukee.....   | 1 A-c. Recl.  | 6.6                        | 4000                        |
| "                                     | "                         | Nashotah.....        | 2 A-c. Recl.  | 50                         | 4000                        |
| "                                     | "                         |                      | 1 A-c. Recl.  | 200                        | 4000                        |
| "                                     | "                         |                      | 3 A-c. Recl.  | 200                        | 2300                        |
| "                                     | "                         | No. Milwaukee.....   | 1 A-c. Recl.  | 150                        | ....                        |
| "                                     | "                         |                      | 3 A-c. Recl.  | 100, 200                   | 4000                        |
| "                                     | "                         |                      | 1 A-c. Recl.  | ....                       | 2300                        |
| "                                     | "                         |                      | 4 A-c. Recl.  | 100                        | 2300/4000                   |
| "                                     | "                         |                      | 2 A-c. Recl.  | 288                        | 4000                        |
| "                                     | "                         |                      | 2 A-c. Recl.  | 1-100, 1-856               | 26,400                      |
| "                                     | "                         |                      | 1 A-c. Recl.  | 1310                       | 13,210                      |
| Town of Lantana.....                  | Lantana, Fla.....         |                      | 1 A-c. Recl.  | 200                        | 4000                        |
| Trinidad Elec. Trans. Rwy. & Gas Co.  | Walsen, Col.....          |                      | 1 A-c. Recl.  | 80                         | 2300                        |
| Toledo Edison Co.....                 | Toledo, Ohio.....         |                      | 1 A-c. Recl.  | 65                         | 44,000                      |
| "                                     | "                         |                      | 1 A-c. Recl.  | 400                        | 88,000                      |
| "                                     | "                         |                      | 1 A-c. Recl.  | 300                        | 6900                        |
| Union Electric Light & Power Co.....  | St. Louis, Mo.....        | Kingsbury.....       | 9 A-c. Recl.  | ....                       | 4000                        |
| "                                     | "                         | Newstead.....        | 3 A-c. Recl.  | 300                        | 2600/4500                   |
| "                                     | "                         |                      | 4 A-c. Recl.  | 300                        | 4500/2600                   |
| "                                     | "                         | No. 16.....          | 6 A-c. Recl.  | 300                        | 4500/2600                   |
| United Electric Light Co.....         | Springfield, Mass.....    | No. 17.....          | 2 A-c. Recl.  | 300                        | 4500/2600                   |
| "                                     | "                         | B. & A. R. R. Trans. |               |                            |                             |
| "                                     | "                         | Vault.....           | 2 A-c. Recl.  | 300                        | 5500                        |
| United Gas & Electric Co.....         | Sinking Spring, Pa.....   | Carew St.....        |               | ....                       | 2400                        |
| "                                     | "                         |                      | 1 A-c. Recl.  | 100                        | 4400                        |
| Upper Hudson Elec. & R. R. Co.....    | Poughkeepsie, N. Y.....   | Elmira, N. Y.....    | 1 A-c. Recl.  | 400                        | 2300                        |
| "                                     | "                         | Ravena.....          | 1 A-c. Recl.  | 60                         | 2300                        |
| Utah Power & Light Co.....            | Salt Lake City, Utah..... | Tannersville.....    | 2 A-c. Recl.* | 1-20, 1-50                 | 4000                        |
| Utica Gas & Electric Co.....          | Utica, N. Y.....          |                      | 1 A-c. Recl.  | 300                        | 45,000                      |
| "                                     | "                         |                      | 7 A-c. Recl.  | ....                       | 44,000                      |
| "                                     | "                         |                      | 2 A-c. Recl.  | 400                        | 37,000                      |
| Virginia Elec. & Pr. Co.....          | Winfall, N. C.....        |                      | 3 A-c. Recl.  | 300                        | 33,000                      |
| Virginia Ry. & Power Co.....          | Richmond, Va.....         |                      | 3 A-c. Recl.  | 400                        | 2300                        |
| "                                     | "                         | Acca.....            | 4 A-c. Recl.  | 300                        | 2300                        |
| Virginian Power Co.....               | Charleston, W. Va.....    | Howard Road.....     | 7 A-c. Recl.  | 150, 300                   | 2300                        |
| Washington Water Power Co.....        | Spokane, Wash.....        |                      | 1 A-c. Recl.  | 400                        | 4400                        |
| West Branch Light & Power Co.....     | Stamford, N. Y.....       |                      | 1 A-c. Recl.  | 200                        | 2300                        |
| West Florida Power Co.....            | Havana, Ga.....           | Prattsville.....     | 1 A-c. Recl.  | 10                         | 6600                        |
| "                                     | "                         |                      | 1 A-c. Recl.  | 50                         | 2300                        |
| "                                     | "                         |                      | 1 A-c. Recl.  | 50                         | 2300                        |
| "                                     | Wigham, Ga.....           |                      | 1 A-c. Recl.  | 50                         | 2300                        |
| "                                     | Quincy, Fla.....          |                      | 1 A-c. Recl.  | 50                         | 2300                        |
| West Pennsylvania Power Co.....       | Cairo, Ga.....            |                      | 1 A-c. Recl.  | 400                        | ....                        |
| "                                     | Pittsburgh, Pa.....       |                      | 1 A-c. Recl.  | 50                         | 2300                        |
| "                                     | "                         |                      | 15 A-c. Recl. | ....                       | 15,000                      |
| "                                     | "                         | Clarion.....         | 2 A-c. Recl.  | ....                       | 220                         |
| "                                     | "                         | Derry.....           | 4 A-c. Recl.  | 400                        | 6600                        |
| West Virginia & Maryland Power Co..   | Grafton, W. Va.....       | New Bethlehem.....   | 1 A-c. Recl.  | 26                         | 6900                        |
| "                                     | "                         |                      | 2 A-c. Recl.  | ....                       | 2300                        |
| "                                     | "                         |                      | 6 A-c. Recl.  | 400                        | 15,000                      |
| "                                     | "                         |                      | 2 A-c. Recl.  | 400                        | 2300                        |
| Westchester Light Co.....             | Elkins, W. Va.....        |                      | 1 A-c. Recl.  | 400                        | 15,000                      |
| "                                     | Mt. Vernon, N. Y.....     |                      | 1 A-c. Recl.  | ....                       | 2300                        |
| "                                     | "                         |                      | 2 A-c. Recl.  | 300                        | 2200                        |
| "                                     | "                         |                      | 1 A-c. Recl.  | 227                        | 2200                        |
| Wisconsin-Minnesota Lt. & Pr. Co..... | La Crosse, Wis.....       | Mamaroneck.....      | 1 A-c. Recl.  | 600                        | 4000/2300                   |
| Wisconsin Power & Light Co.....       | Duluth, Minn.....         | Indian Hill.....     | 3 A-c. Recl.  | 100, 200                   | 4000                        |
| Wisconsin Public Ser. Co.....         |                           |                      | 12 A-c. Recl. | 500 Kv-a.                  | 4250                        |
| Wisconsin River Power Co.....         | Brooklyn, Wis.....        |                      | 1 A-c. Recl.  | 400                        | 4000                        |
| Yadkin River Power Co.....            | Latta, S. C.....          |                      | 1 A-c. Recl.  | ....                       | 13,200                      |
|                                       |                           |                      | 2 A-c. Recl.  | 1-6.6, 1-125               | 2300                        |



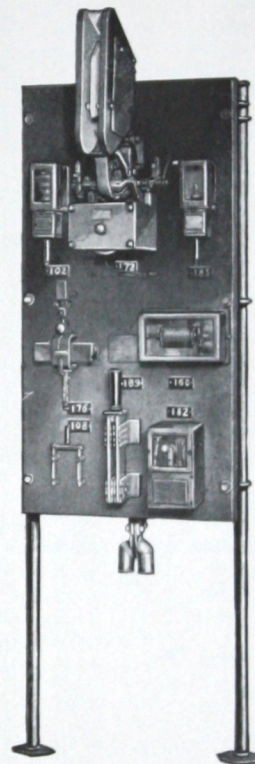
## AUTOMATIC STATIONS

### D-C. RECLOSING FEEDERS FOR MINING AND INDUSTRIAL SERVICE

These equipments are for mining and industrial service on circuits supplying power to hoists, drills, cutting machines, mine trolley systems, and various industrial applications. There are three standard types, stub feed, stub-multiple feed, and sectionalizing. They require no attendance other than for inspection, as they automatically disconnect the load from the source of power in case of voltage failure or excessive load. They provide a predetermined time between the opening of the feeder and the attempted restoration of service, but will not reclose as long as the abnormal condition exists. However, when the line is clear, service is automatically restored.



Automatic Switching Equipment for  
Sectionalizing and Reclosing  
Service, 275 Volts, 600 Amp.



Automatic Switching Equipment for  
275-volt, 1640-amp. Stub-multiple  
D-c. Reclosing Feeder

| Company                              | Address              | Station       | Apparatus        | Amp.<br>Capacity<br>(Each) | Voltage<br>Outgoing |
|--------------------------------------|----------------------|---------------|------------------|----------------------------|---------------------|
| Alabama By-Products Co.....          | Littleton, Ala.....  | .....         | 1 D-c. Recl.     | 1640                       | 275                 |
| Algoma Block Coal Company.....       | Lothair, Ky.....     | .....         | 1 D-c. Recl.     | 900                        | 275                 |
| American Smelting & Refining Co..... | Garfield, Utah.....  | .....         | 1 Sectionalizing | 600                        | 275                 |
| Anaconda Copper Mining Co.....       | Butte, Mont.....     | .....         | 2 D-c. Recl.     | ...                        | 275                 |
| "                                    | "                    | .....         | 2 D-c. Recl.     | 340                        | 275                 |
| "                                    | "                    | .....         | 2 D-c. Recl.     | 1-300, 1-600               | 275                 |
| "                                    | "                    | .....         | 1 D-c. Recl.     | 405                        | 250/275             |
| "                                    | "                    | .....         | 1 D-c. Recl.     | 150/600                    | 275                 |
| Appalachian Power Co.....            | Bluefield, W. Va.... | .....         | 1 D-c. Recl.     | 1500                       | 275                 |
| "                                    | "                    | Eckman.....   | 1 D-c. Recl.     | ...                        | 275                 |
| "                                    | "                    | No. 1.....    | 1 D-c. Recl.     | ...                        | 275                 |
| "                                    | "                    | No. 4.....    | 1 D-c. Recl.     | ...                        | 275                 |
| "                                    | "                    | .....         | 1 D-c. Recl.     | ...                        | 550                 |
| "                                    | Ashland, W. Va....   | Cherokee..... | 1 D-c. Recl.     | 900                        | 550                 |



# GENERAL ELECTRIC

| Company                                 | Address                   | Station                 | Apparatus        | Amp.<br>Capacity<br>(Each) | Voltage<br>Outgoing |
|---|---------------------------|-------------------------|------------------|----------------------------|---------------------|
| Appalachian Power Co.                   | Bluefield, W. Va.....     | Richland, Va.....       | 1 D-c. Recl.     | 900                        | 275                 |
| "                                       | "                         | "                       | 1 D-c. Recl.     | 1640                       | 275                 |
| "                                       | "                         | McComus.....            | 1 D-c. Recl.     | 900                        | 275                 |
| "                                       | "                         | Faraday.....            | 1 D-c. Recl.     | 1640                       | 275                 |
| Arlington Coal & Coke Co.....           | Crumpler, W. Va.....      | "                       | 1 D-c. Recl.     | 1500                       | 275                 |
| Atlantic Smokeless Coal Co.....         | McDowell, W. Va.....      | "                       | 2 D-c. Recl.     | .....                      | 275                 |
| Bailey Coal Company.....                | Dinwood, Ky.....          | "                       | 1 D-c. Recl.     | 900                        | 275                 |
| Bankhead Coal Co.....                   | Bankhead, Ala.....        | "                       | 1 D-c. Recl.     | 900                        | 275                 |
| Benedict Coal Corp.....                 | Benedict, Va.....         | "                       | 2 D-c. Recl.     | 1640                       | 275                 |
| Berger Coal Mining Co.....              | Shields, Ky.....          | "                       | 1 D-c. Recl.     | 600                        | 275                 |
| Berwind White Coal Mining Co.....       | Windver, Pa.....          | Colliery No. 35.....    | 1 D-c. Recl.     | 2000                       | 550                 |
| Bethlehem Coal Co.....                  | Shinnston, W. Va.....     | "                       | 1 D-c. Recl.     | 1500                       | 275                 |
| Bethlehem Mines Corp.....               | Richards, W. Va.....      | "                       | 1 D-c. Recl.     | 2000                       | 275                 |
| Bethlehem Steel Co.....                 | Sparrows Point, Md.....   | "                       | 5 D-c. Recl.     | 3-2000, 2-4000             | 250                 |
| "                                       | "                         | "                       | 1 D-c. Recl.     | 2000                       | 250                 |
| Black Diamond Coal Mining Co.....       | Drakesboro, Ky.....       | "                       | 3 D-c. Recl.     | .....                      | 275                 |
| Black Star Coal Co.....                 | Alva, Ky.....             | "                       | 1 D-c. Recl.     | 1200                       | 275                 |
| Blackwood Coal & Coke Co.....           | Blackwood, Va.....        | "                       | 2 D-c. Recl.     | 1200                       | 275                 |
| Blue Diamond Coal Company.....          | Blue Diamond, Ky.....     | "                       | 1 Sectionalizing | 600                        | 275                 |
| "                                       | "                         | "                       | 3 D-c. Recl.     | 900                        | 275                 |
| "                                       | "                         | "                       | 1 D-c. Recl.     | 1400                       | 275                 |
| Bonny Blue Coal Company.....            | St. Charles, Va.....      | "                       | 1 D-c. Recl.     | 1200                       | 275                 |
| Booth Bowen Coal & Coke Co.....         | Coon, W. Va.....          | "                       | 1 D-c. Recl.     | 728                        | 275                 |
| Bowling Coal Mining Co.....             | Bardo, Ky.....            | "                       | 1 D-c. Recl.     | 600                        | 275                 |
| Braden Copper Co.....                   | Chile, S. A.....          | "                       | 5 D-c. Recl.     | 900                        | 275                 |
| Brilliant Coal Co.....                  | Calumet, Ala.....         | "                       | 1 D-c. Recl.     | 900                        | 275                 |
| Buck Run Coal Co.....                   | Minersville, Pa.....      | "                       | 1 D-c. Recl.     | 900                        | 275                 |
| Buckeye Coal Co.....                    | Youngstown, Ohio.....     | "                       | 1 D-c. Recl.     | 1092                       | 275                 |
| "                                       | Nemacolin, Pa.....        | "                       | 7 D-c. Recl.     | 3-600, 3-900,<br>1-1500    | 275                 |
| "                                       | Youngstown, Ohio.....     | Nemacolin, Pa.....      | 1 D-c. Recl.     | 1640                       | 275                 |
| Buffalo & Susquehanna Coal & Coke Co.   | DuBois, Pa.....           | "                       | 2 D-c. Recl.     | 900                        | 500                 |
| Burns Bros. Coal Co.....                | Grampion, Pa.....         | "                       | 1 D-c. Recl.     | 900                        | 275                 |
| Burton, J. P., Coal Co.....             | Wheelwright Jct., Ky..... | "                       | 1 D-c. Recl.     | 900                        | 275                 |
| Cambria Coal Co.....                    | "                         | "                       | 1 D-c. Recl.     | 900                        | 275                 |
| Campbell Coal Mining Co.....            | West Bourne, Tenn.....    | "                       | 3 D-c. Recl.     | 1200                       | 275                 |
| Carbon Fuel Co.....                     | Carbon, W. Va.....        | South Carbon.....       | 1 D-c. Recl.     | .....                      | 275                 |
| Carnegie Coal Co.....                   | Atlasburg, Pa.....        | "                       | 1 D-c. Recl.     | 1200                       | 275                 |
| Carrolltown Coal Co.....                | St. Benedict, Pa.....     | St. Benedict.....       | 1 D-c. Recl.     | .....                      | 275                 |
| Chafin, Jones & Heatherman Coal Co..... | Logan, W. Va.....         | Peach Creek.....        | 1 D-c. Recl.     | .....                      | 275                 |
| "                                       | "                         | Peach Creek.....        | 1 D-c. Recl.     | 1500                       | 275                 |
| Clearfield Bituminous Coal Co.....      | Rossiter, Pa.....         | "                       | 1 D-c. Recl.     | .....                      | 550                 |
| "                                       | "                         | "                       | 1 D-c. Recl.     | .....                      | 550                 |
| "                                       | "                         | Rossiter.....           | 1 D-c. Recl.     | .....                      | 275                 |
| "                                       | "                         | Pleasant Hill Mine..... | 1 D-c. Recl.     | .....                      | 275                 |
| "                                       | "                         | Grass Flat, Pa.....     | 1 D-c. Recl.     | .....                      | 275                 |
| "                                       | "                         | "                       | 1 D-c. Recl.     | .....                      | 275                 |
| "                                       | "                         | "                       | 3 Sectionalizing | 1640                       | 275                 |
| Cleveland-Morgantown Coal Co.....       | Pursglove, W. Va.....     | "                       | 1 D-c. Recl.     | 1000                       | 550                 |
| Clinchfield Coal Corp.....              | Dante, Va.....            | No. 2 Shop.....         | 3 D-c. Recl.     | 900                        | 575                 |
| Coal Bluff Mining Co.....               | Terre Haute, Ind.....     | Wabash Mine.....        | 1 D-c. Recl.     | 900                        | 275                 |
| Coal River Collieries.....              | Huntington, W. Va.....    | Seth Boone Co.....      | 1 D-c. Recl.     | .....                      | 275                 |
| "                                       | "                         | Seth Boone Co.....      | 1 D-c. Recl.     | .....                      | 275                 |
| "                                       | "                         | Seth Boone Co.....      | 2 D-c. Recl.     | .....                      | 275                 |
| "                                       | "                         | Seth Boone Co.....      | 1 D-c. Recl.     | .....                      | 275                 |
| Cochran Coal Co.....                    | Salina, Pa.....           | "                       | 1 D-c. Recl.     | 820                        | 275                 |
| Commercial Coal Mining Co.....          | Exedit, Pa.....           | "                       | 1 D-c. Recl.     | 900                        | 275                 |
| Consolidated Coal Co.....               | Bay City, Mich.....       | "                       | 1 D-c. Recl.     | 1500                       | 275                 |
| Consolidation Coal Co.....              | Fairmont, W. Va.....      | "                       | 1 D-c. Recl.     | .....                      | 275                 |
| "                                       | "                         | "                       | 1 D-c. Recl.     | 900                        | 275                 |
| "                                       | "                         | "                       | 1 D-c. Recl.     | 900                        | 275                 |
| Continental Coal Co.....                | Jenkins, Ky.....          | "                       | 2 D-c. Recl.     | 900                        | 275                 |
| Cornett Lewis Coal Co.....              | Cassville, W. Va.....     | "                       | 2 D-c. Recl.     | 900                        | 275                 |
| "                                       | High Splint, Ky.....      | "                       | 1 D-c. Recl.     | 900                        | 275                 |
| "                                       | Seagraves, Ky.....        | "                       | 1 D-c. Recl.     | .....                      | 275                 |



# AUTOMATIC STATIONS

| Company                        | Address               | Station               | Apparatus        | Amp.<br>Capacity<br>(Each) | Voltage<br>Outgoing |
|--------------------------------|-----------------------|-----------------------|------------------|----------------------------|---------------------|
| Corona Coal Co.                | Towndy, Ala.          | So. Side.             | 2 D-c. Recl.     | 900                        | 275                 |
| "                              | "                     | No. Side.             | 2 D-c. Recl.     | 900                        | 275                 |
| Cranberry Fuel Co.             | Skelton, W. Va.       | No. 2 Mine            | 1 D-c. Recl.     | 1500                       | 600                 |
| Crawford Coal Co.              | Bonnyman.             | Bonnyman.             | 1 D-c. Recl.     | 900                        | 275                 |
| Creek Coal Co.                 | Wallins, Ky.          |                       | 1 D-c. Recl.     | 1500                       | 275                 |
| Crown Coal Co.                 | Arnettville, W. Va.   | Yukon Mine            | 1 D-c. Recl.     | 1500                       | 275                 |
| Crummies Creek Coal Co.        | Harlan, Ky.           |                       | 1 D-c. Recl.     | 900                        | 275                 |
| Crystal Block Coal & Coke Co.  | Steirrtart, W. Va.    |                       | 1 D-c. Recl.     | 900                        | 275                 |
| Cunningham, Miller & Enslow    | Huntington, W. Va.    | Don Mines.            | 2 D-c. Recl.     | ....                       | 275                 |
| "                              | "                     |                       | 1 D-c. Recl.     | 900                        | 275                 |
| Debardeleven Coal Corp.        | Coal Valley, Ala.     | Cowhide.              | 2 D-c. Recl.     | 900                        | 275                 |
| Deep Run Big Vein Coal Co.     | Shaw, W. Va.          |                       | 2 D-c. Recl.     | 900                        | 275                 |
| Dexcar Pocahontas Coal Co.     | Twin Branch, W. Va.   | No. 4, 5              | 2 D-c. Recl.     | 900                        | 550                 |
| Diamond Coal Co.               | Upland, Ky.           |                       | 1 D-c. Recl.     | 900                        | 275                 |
| Donk Bros. Coal & Coke Co.     | Thermall, Ill.        |                       | 4 D-c. Recl.     | ....                       | 275                 |
| Duvins Coal Co.                | Providence, Ky.       |                       | 1 D-c. Recl.     | 900                        | 275                 |
| East Harlan Coal Co.           | Draper, Ky.           |                       | 2 D-c. Recl.     | 900                        | 275                 |
| Ebersbach Martin Co.           | Pomeroy, Ohio         |                       | 1 D-c. Recl.     | ....                       | 275                 |
| Elde Junior Coal Co.           |                       |                       | 1 D-c. Recl.     | 900                        | 275                 |
| Elkhorn Coal Co.               | Kona, Ky.             |                       | 1 D-c. Recl.     | 900                        | 275                 |
| "                              | Wayland, Ky.          |                       | 1 D-c. Recl.     | 1200                       | 275                 |
| "                              | "                     |                       | 1 Sectionalizing | 900                        | 275                 |
| Elk River Coal & Lumber Co.    | Widen, W. Va.         |                       | 1 D-c. Recl.     | 900                        | 275                 |
| "                              | "                     |                       | 1 D-c. Recl.     | 1640                       | 275                 |
| Engels Copper Mining Co.       | Engels, Cal.          |                       | 3 D-c. Recl.     | 150                        | 275                 |
| Ephraim Creek Coal & Coke Co.  | Thayer, W. Va.        |                       | 1 D-c. Recl.     | 800                        | 600                 |
| Follansbee Bros. Co.           | Toronto, Ohio         |                       | 1 D-c. Recl.     | 900                        | 275                 |
| Fordson Coal Co.               | Stone, Ky.            |                       | 1 D-c. Recl.     | 1640                       | 300                 |
| "                              | Fordson, Ky.          |                       | 1 D-c. Recl.     | 1640                       | 300                 |
| Frick, H. C., Coke Co.         | Monarch, Pa.          | Leisenring No. 3 Mine | 2 D-c. Recl.     | 1-500, 1-900               | 575                 |
| "                              | Scottsdale, Pa.       | Footdale, Mine        | 3 D-c. Recl.     | ....                       | 275                 |
| "                              | "                     | Marguyette Mine       | 2 D-c. Recl.     | ....                       | 575                 |
| Gillian Coal & Coke Co.        |                       |                       | 1 D-c. Recl.     | 1200                       | 275                 |
| Glen Alden Coal Co.            | Glen Alden, Pa.       |                       | 1 D-c. Recl.     | 1200                       | 275                 |
| Gorman, John P., Coal Co.      |                       |                       | 1 D-c. Recl.     | 900                        | 275                 |
| Gracelli Chemical Co.          | Terre Haute, Ind.     |                       | 2 D-c. Recl.     | ....                       | 275                 |
| "                              | Cleveland, Ohio       | Meadowbrook, W. Va.   | 1 D-c. Recl.     | 1000                       | 275                 |
| Graceton Coal & Coke Co.       | Graceton, Pa.         |                       | 1 D-c. Recl.     | 600                        | 275                 |
| Green Briar Smokeless Coal Co. | Bellburn, W. Va.      |                       | 1 D-c. Recl.     | 1500                       | 275                 |
| Hamler Coal Co.                | Hamler, Pa.           |                       | 1 D-c. Recl.     | 900                        | 275                 |
| Hanna, M. A., Co.              | Duluth, Minn.         |                       | 2 D-c. Recl.     | 900                        | 600                 |
| Hardy Coal Co.                 | Huntington, W. Va.    |                       | 1 D-c. Recl.     | ....                       | 275                 |
| Harlan Fuel Co.                | Yancey, Ky.           |                       | 1 D-c. Recl.     | 1640                       | 275                 |
| Harrisburg Coal Mining Co.     | Harrisburg, Ill.      |                       | 1 D-c. Recl.     | 600                        | 275                 |
| Hecla Coal & Coke Co.          | Isabella, Pa.         | Isabella Mine.        | 1 D-c. Recl.     | ....                       | 550                 |
| Heisley Coal Co.               | Nanty-Glo, Pa.        |                       | 1 D-c. Recl.     | 1500                       | 275                 |
| High Splint Coal Co.           | High Splint, Ky.      |                       | 1 D-c. Recl.     | 1200                       | 275                 |
| Himler Coal Co.                | Himlerville, Ky.      |                       | 1 D-c. Recl.     | 1200                       | 275                 |
| Hudson Coal Co.                | Scranton, Pa.         |                       | 2 D-c. Recl.     | 1500                       | 300                 |
| Imperial Colliery Co.          | Burnwell, W. Va.      |                       | 1 D-c. Recl.     | 900                        | 275                 |
| Imperial Smokeless Coal Co.    | Ominwood, W. Va.      |                       | 1 D-c. Recl.     | 900                        | 275                 |
| Independent Coal & Coke Co.    | Salt Lake City, Utah. |                       | 1 D-c. Recl.     | 600                        | 275                 |
| "                              | "                     |                       | 1 D-c. Recl.     | 1200                       | 275                 |
| Indian Creek Coal Co.          | Somerset, Pa.         |                       | 1 D-c. Recl.     | ....                       | 275                 |
| Island Creek Coal Co.          | Holden, W. Va.        |                       | 4 D-c. Recl.     | ....                       | 275                 |
| "                              | "                     | Mine No. 22.          | 2 D-c. Recl.     | 1500                       | 275                 |
| Jake Henry Coal Co.            | Williamson, W. Va.    |                       | 1 D-c. Recl.     | ....                       | 275                 |
| Jeddo Highland Coal Co.        | Jeddo, Pa.            |                       | 3 D-c. Recl.     | 2-600, 1-1200              | 275                 |
| Kansas City Power & Light Co.  | Kansas City, Mo.      | Higginsville, Mo.     | 1 D-c. Recl.     | 600                        | 275                 |
| Kayford Electric Shop          | Kayford, W. Va.       |                       | 1 D-c. Recl.     | 1200                       | 275                 |
| Kenmont Coal Co.               | Jefferson, Ky.        |                       | 2 D-c. Recl.     | 900                        | 275                 |
| Kentucky King Coal Co.         | Wallins, Ky.          |                       | 1 D-c. Recl.     | 900                        | 275                 |
| King Harlan Company            | Kildare, Ky.          |                       | 1 D-c. Recl.     | 900                        | 275                 |
| Kingston Pocahontas Coal Co.   | Memphill, W. Va.      | Westerly              | 2 D-c. Recl.     | 1200                       | 275                 |
| Landstreet Downey Coal Co.     | Huntington, W. Va.    |                       | 1 D-c. Recl.     | ....                       | 275                 |



# GENERAL ELECTRIC

| Company                                | Address               | Station                | Apparatus        | Amp. Capacity (Each) | Voltage Outgoing |
|--|-----------------------|------------------------|------------------|----------------------|------------------|
| Leckie Colliery Co.                    | Leckieville, Ky.      |                        | 1 D-c. Recl.     | 900                  | 275              |
| "                                      | "                     |                        | 1 D-c. Recl.     | 1500                 | 275              |
| Lehigh & Wilkesbarre Coal Co.          | Scranton, Pa.         |                        | 1 Sectionalizing | 900                  | 300              |
| Lehigh Valley Coal Co.                 | Beaver Meadows, Pa.   |                        | 1 D-c. Recl.     | 600                  | 275              |
| "                                      | Wilkes-Barre, Pa.     | Prospect Colliery      | 2 D-c. Recl.     | 600                  | 275              |
| "                                      | "                     | Hazleton               | 1 Sectionalizing | 900                  | 750              |
| "                                      | Mt. Carmel, Pa.       |                        | 1 D-c. Recl.     | 900                  | 275              |
| "                                      | "                     |                        | 2 D-c. Recl.     | 1200                 | 275              |
| "                                      | Wilkes-Barre, Pa.     |                        | 1 D-c. Recl.     | 900                  | 275              |
| Liberty Coal Mining Co.                | Hillside, Ky.         |                        | 1 D-c. Recl.     | 900                  | 275              |
| Linton Summit Coal Co.                 | Linton, Ind.          |                        | 1 D-c. Recl.     | 1640                 | 275              |
| Lion Coal Co.                          | Ogden, Utah           | Wattis Mines           | 1 D-c. Recl.     | 1500                 | 275              |
| Logan Mining Co.                       | Logan, W. Va.         | Wanda Mine             | 1 D-c. Recl.     | 600                  | 275              |
| Long Flame Coal Co.                    | Stone, W. Va.         |                        | 1 D-c. Recl.     | 900                  | 275              |
| Lorain Coal & Dock Co.                 | Lorado, W. Va.        |                        | 1 D-c. Recl.     | 900                  | 275              |
| "                                      | Crescent, Ohio        |                        | 2 D-c. Recl.     | 1640                 | 275              |
| "                                      | Blaine, Ohio          | Blaine                 | 3 D-c. Recl.     | 1640                 | 300              |
| Lynn Coal & Coke Co.                   | Matewan, W. Va.       |                        | 1 D-c. Recl.     | ...                  | 275              |
| Maderia Hill Smithing Coal Co.         | Fuedena, Pa.          |                        | 1 D-c. Recl.     | ...                  | 275              |
| Main Island Creek Coal Co.             | Oman, W. Va.          |                        | 1 D-c. Recl.     | 1500                 | 275              |
| Majestic Coal Co.                      | Wendell, W. Va.       |                        | 2 D-c. Recl.     | ...                  | 275              |
| Marsh Fork Coal Co.                    | Marsh Fork, W. Va.    |                        | 1 D-c. Recl.     | 1200                 | 275              |
| Maryland Coal Co.                      | Majestic, Ala.        |                        | 1 D-c. Recl.     | 900                  | 257              |
| Maryland New River Coal Co.            | Rothwell, W. Va.      |                        | 1 D-c. Recl.     | 900                  | 275              |
| May King Coal Co.                      | May King, Ky.         |                        | 1 D-c. Recl.     | 900                  | 275              |
| McKinney Steel Co.                     | Cleveland, O.         | Wolf Pit, Ky.          | 2 D-c. Recl.     | 1200                 | 275              |
| "                                      | "                     | Wolf Pit, Ky.          | 2 D-c. Recl.     | 1200                 | 275              |
| "                                      | "                     |                        | 2 D-c. Recl.     | 600                  | 275              |
| "                                      | "                     |                        | 2 D-c. Recl.     | 1500                 | 275              |
| Merchants Coal Corp.                   | Tunnelton, W. Va.     | No. 1 & No. 2          | 1 D-c. Recl.     | 1600                 | 275              |
| Midland Mining Co.                     |                       |                        | 2 D-c. Recl.     | 820                  | 275              |
| Moffitt-Sterling Gas & Coal Co.        |                       |                        | 1 D-c. Recl.     | 600                  | 275              |
| Montana Coal & Iron Co.                | Washoe, Mont.         | So. End Siding No. 154 | 1 D-c. Recl.     | 900                  | 275              |
| Mount Olive & Staunton Coal Co.        | Staunton, Ill.        | No. 1                  | 2 D-c. Recl.     | 900                  | 275              |
| "                                      | "                     |                        | 1 D-c. Recl.     | 1200                 | 275              |
| "                                      | "                     |                        | 1 D-c. Recl.     | 1200                 | 275              |
| "                                      | "                     |                        | 1 D-c. Recl.     | 1200                 | 275              |
| National Fuel Co.                      | National, W. Va.      |                        | 1 D-c. Recl.     | 1200                 | 275              |
| National Mining Co.                    | Cowden, Pa.           | Mine No. 3             | 3 D-c. Recl.     | ...                  | 575              |
| "                                      | "                     |                        | 2 D-c. Recl.     | 600-1000             | 575              |
| Nelsonville & Murray Coal Co.          | Jobs, Ohio            |                        | 1 D-c. Recl.     | 600                  | 275              |
| New Eng. Fuel and Transportation Co.   | Grant Town, W. Va.    |                        | 1 D-c. Recl.     | 2000                 | 275              |
| New Staunton Coal Co.                  | Livingston, Ky.       |                        | 2 D-c. Recl.     | 600                  | 275              |
| New River & Pocahontas Cons. Coal Co.  | Philadelphia, Pa.     | Havaco, W. Va.         | 2 D-c. Recl.     | ...                  | 275              |
| "                                      | "                     | Layland, W. Va.        | 2 D-c. Recl.     | 1500                 | 275              |
| "                                      | "                     | Layland, W. Va.        | 2 D-c. Recl.     | 2000                 | 275              |
| Norfolk & Western R.R. Co.             | Chattaroy, N. Y.      |                        | 1 D-c. Recl.     | 900                  | 275              |
| Northwestern Improvement Co.           | Red Lodge, Mont.      |                        | 2 D-c. Recl.     | ...                  | 275              |
| Northwestern Mining & Exchange         | Cramer, Pa.           |                        | 2 D-c. Recl.     | ...                  | 275              |
| Packs Branch Coal Co.                  | Veasey Siding, W. Va. |                        | 1 D-c. Recl.     | ...                  | 275              |
| Paragon Collieries Co.                 | Yolyn, W. Va.         |                        | 3 D-c. Recl.     | 900                  | 275              |
| Peal, Peacock & Kerr, Inc.             | Mitchells, Pa.        | No. A-18 Mine          | 2 D-c. Recl.     | 1500                 | 275              |
| Penelec Coal Corp.                     | Seward, Pa.           |                        | 2 D-c. Recl.     | 600                  | 275              |
| Pennsylvania Coal Co.                  | Pittston, Pa.         | No. 14 Colliery        | 3 D-c. Recl.     | ...                  | 275              |
| Penn. Pitt Coal & Coke Co.             | Poland, Pa.           |                        | 2 D-c. Recl.     | 900                  | 275              |
| Penn. Public Service Co.               | Clearfield, Pa.       |                        | 1 D-c. Recl.     | 600                  | 275              |
| Phelps Dodge Corp.                     | Dawson, New Mex.      |                        | 1 D-c. Recl.     | 1500                 | 275              |
| Philadelphia & Reading Coal & Iron Co. | Pottsville, Pa.       | Pottsville             | 4 D-c. Recl.     | 1200                 | 275              |
| "                                      | "                     | Rausch Creek Colliery  | 1 D-c. Recl.     | 1200                 | 275              |
| "                                      | "                     | Maple Hill Colliery    | 1 D-c. Recl.     | 1200                 | 275              |
| "                                      | "                     | Locust Gap             | 2 D-c. Recl.     | 1200                 | 275              |
| Pine Run Coal Co.                      | Vandergrift, Pa.      |                        | 3 D-c. Recl.     | 2-900, 1-1200        | 275              |
| "                                      | New Bethlehem, Pa.    | No. 12                 | 1 D-c. Recl.     | ...                  | 275              |
| Pittsburgh Coal Co.                    | Moon Run, Pa.         | Moon Run Sub.          | 3 D-c. Recl.     | 1200                 | 575              |
| "                                      | California, Pa.       | Crescent Mine Sub. 2.  | 2 D-c. Recl.     | 1000                 | 575              |
| "                                      | Scott Haven, Pa.      | Warden Mine            | 3 D-c. Recl.     | 1000                 | 600              |



# AUTOMATIC STATIONS

| Company                             | Address             | Station             | Apparatus        | Amp.<br>Capacity<br>(Each) | Voltage<br>Outgoing |
|-------------------------------------|---------------------|---------------------|------------------|----------------------------|---------------------|
| Pittsburgh Plate Glass Co.          | Crystal City, Mo.   |                     | 1 D-c. Recl.     | 600                        | 275                 |
| Pond Creek By-Products Colliery Co. | Williamson, W. Va.  |                     | 1 D-c. Recl.     | 900                        | 275                 |
| Pond Creek Coal Co.                 | Stone, Ky.          |                     | 1 D-c. Recl.     | ...                        | 275                 |
| Pond Creek Pocohontas Coal Co.      | Bartley, W. Va.     |                     | 1 D-c. Recl.     | 1500                       | 275                 |
| Portage Coal Mining Co.             | Portage, Pa.        | Portage No. 5 Mine. | 1 D-c. Recl.     | 1500                       | 275                 |
| Portsmouth By-Products Coke Co.     | Portsmouth, Ohio.   | Delorme, W. Va.     | 1 D-c. Recl.     | 900                        | 275                 |
| "                                   | "                   | Arrow, Ky.          | 1 D-c. Recl.     | 1200                       | 275                 |
| Potter Coal & Coke Co.              | Coral, Pa.          |                     | 1 D-c. Recl.     | 900                        | 275                 |
| Pratt Brothers                      | Herrin, Ill.        |                     | 1 D-c. Recl.     | 600                        | 275                 |
| "                                   | "                   |                     | 1 D-c. Recl.     | 1500                       | 275                 |
| Preston County Coke Co.             | Cascade, W. Va.     |                     | 1 D-c. Recl.     | 1640                       | 275                 |
| Puritan Coal Co.                    |                     |                     | 1 D-c. Recl.     | 1500                       | 275                 |
| Railway Fuel Co.                    | Parrish, Ala.       |                     | 1 D-c. Recl.     | 600                        | 275                 |
| Red Jacket Consolidated Coal Co.    | Red Jacket, W. Va.  |                     | 1 D-c. Recl.     | 1500                       | 275                 |
| Republic Iron & Steel Co.           | Birmingham, Ala.    | Raymond             | 1 D-c. Recl.     | 900                        | 275                 |
| "                                   | "                   | "                   | 1 Mine Sect.     | 900                        | 275                 |
| "                                   | N. Birmingham, Ala. | Saerton Mine        | 1 D-c. Recl.     | 600                        | 275                 |
| "                                   | Martin, Pa.         | Martin Coke Works.  | 3 D-c. Recl.     | 1-728, 2-600               | 275                 |
| "                                   | Republic, Pa.       |                     | 1 Sectionalizing | 600                        | 275                 |
| Rimerton Coal Co.                   | Rimerton, Pa.       |                     | 2 D-c. Recl.     | ...                        | 275                 |
| River Seam Coal Co.                 | Hildebrand, W. Va.  |                     | 1 D-c. Recl.     | 1200                       | 275                 |
| Roach Creek Coal Co.                | Roach Creek, Tenn.  |                     | 1 D-c. Recl.     | 900                        | 275                 |
| Rock Hill Coal & Iron Co.           | Robertsdale, Pa.    | No. 9 Mine          | 1 D-c. Recl.     | 1200                       | 275                 |
| Roundup Coal Mining Co.             | Roundup, Mont.      |                     | 1 D-c. Recl.     | 900                        | 275                 |
| Rowen Coal Co.                      | Kantner, Pa.        |                     | 1 D-c. Recl.     | 600                        | ...                 |
| Royal Dutch Blast Furnace           | Holland             |                     | 3 D-c. Recl.     | ...                        | 550                 |
| "                                   | "                   |                     | 1 D-c. Recl.     | 500                        | 275                 |
| Ruckman Coal Co.                    | Providence, Ky.     |                     | 1 D-c. Recl.     | 1500                       | 600                 |
| Russell Coal Mining Co.             | Clymer, Pa.         | V-45 Mine           | 1 D-c. Recl.     | 900                        | 575                 |
| Samuel Sherwin                      | Karns City, Pa.     |                     | 1 D-c. Recl.     | 1500                       | 275                 |
| Shannopin Coal Company              | Pittsburgh, Pa.     |                     | 3 D-c. Recl.     | 1300                       | 275                 |
| "                                   | "                   |                     | 1 D-c. Recl.     | ...                        | 275                 |
| Shawmut Mining Co.                  | St. Mary's, Pa.     | Mine No. 31         | 1 D-c. Recl.     | 1200                       | 275                 |
| "                                   | "                   | Mine No. 42         | 1 D-c. Recl.     | 1200                       | 275                 |
| "                                   | "                   | Proctors Mine       | 1 D-c. Recl.     | ...                        | 275                 |
| "                                   | "                   |                     | 1 D-c. Recl.     | 1200                       | 275                 |
| Silver King Coalition Mines         | Park City, Utah     |                     | 4 D-c. Recl.     | 300                        | 275                 |
| Southern Counties Coal Co.          | Eldorado, Ill.      |                     | 1 D-c. Recl.     | ...                        | 275                 |
| Southern Mining Co.                 | Balkan, Ky.         |                     | 1 D-c. Recl.     | 820                        | 600                 |
| "                                   | "                   |                     | 1 Sectionalizing | 600                        | 275                 |
| Standard Coal Co.                   | Vincennes, Ind.     |                     | 1 D-c. Recl.     | 1640                       | 275                 |
| Stearns Coal & Lumber Co.           | Co-operative, Ky.   |                     | 2 D-c. Recl.     | 900                        | 275                 |
| "                                   | Fidelity, Ky.       |                     | 2 D-c. Recl.     | 900                        | 275                 |
| Stonega Coke & Coal Co.             | Andover, Va.        |                     | 1 D-c. Recl.     | 300                        | 275                 |
| "                                   | Big Stone Gap, Va.  |                     | 3 D-c. Recl.     | ...                        | 600                 |
| Summit Coal Mining Co.              | Dayton, Pa.         |                     | 3 D-c. Recl.     | 600                        | 275                 |
| Talley Coal Mining Co.              | Terre Haute, Ind.   |                     | 1 D-c. Recl.     | 1500                       | 275                 |
| Temple Coal Co.                     | Carbondale, Pa.     | Northwest Colliery  | 1 D-c. Recl.     | 1640                       | 275                 |
| "                                   | "                   | Luzerne             | 1 D-c. Recl.     | 1500                       | 275                 |
| Tower Hill Connellsville Coke Co.   | Republic, Pa.       | Plant No. 2         | 2 D-c. Recl.     | 600                        | 275                 |
| Turner Coal Co.                     | Huntington, W. Va.  |                     | 1 D-c. Recl.     | ...                        | 275                 |
| Union Electric Lt. & Pr. Co.        | St. Louis, Mo.      |                     | 1 D-c. Recl.     | 1200                       | 275                 |
| United States Coal & Coke Co.       | Thorpe, W. Va.      |                     | 2 D-c. Recl.     | 900                        | 275                 |
| "                                   | "                   |                     | 2 D-c. Recl.     | 1500                       | 275                 |
| United States Fuel Co.              | Mohrland, Utah      |                     | 1 D-c. Recl.     | 1640                       | 275                 |
| War Eagle Coal Co.                  | War Eagle, W. Va.   |                     | 1 D-c. Recl.     | ...                        | 275                 |
| Wasson Coal Co.                     | Wasson, Ill.        |                     | 1 D-c. Recl.     | 1500                       | 275                 |
| West Kentucky Coal Co.              | Sturgis, Ky.        |                     | 2 Sectionalizing | 1500                       | 275                 |
| West Virginia Coal & Coke Co.       | Monaville, W. Va.   |                     | 1 D-c. Recl.     | 600                        | 275                 |
| "                                   | Omar, W. Va.        |                     | 1 D-c. Recl.     | 1500                       | 275                 |
| "                                   | Rossmore, W. Va.    |                     | 1 D-c. Recl.     | 1500                       | 275                 |
| "                                   | Wilber, W. Va.      | Wilber              | 1 D-c. Recl.     | 1200                       | 275                 |
| White, E. E., Coal Co.              | Glen White, W. Va.  |                     | 1 D-c. Recl.     | ...                        | 275                 |
| White Star Coal Co.                 | Wilhoit, Ky.        |                     | 1 D-c. Recl.     | 900                        | 275                 |
| Williams Coal Co.                   | Mannington, Ky.     | W. Mine Switch      | 1 D-c. Recl.     | 900                        | 275                 |
| William-Ann Coal Co.                | Adanac, W. Va.      |                     | 1 D-c. Recl.     | ...                        | 275                 |
| Williamson Fuel Co.                 | Williamson, W. Va.  |                     | 2 D-c. Recl.     | ...                        | 275                 |
| Wind Rock Coal & Coke Co.           | Wind Rock, Tenn.    |                     | 1 D-c. Recl.     | 1200                       | 275                 |
| Youngstown Sheet & Tube Co.         | Dehue, W. Va.       | Rum Creek Mine      | 2 D-c. Recl.     | 900                        | 276                 |

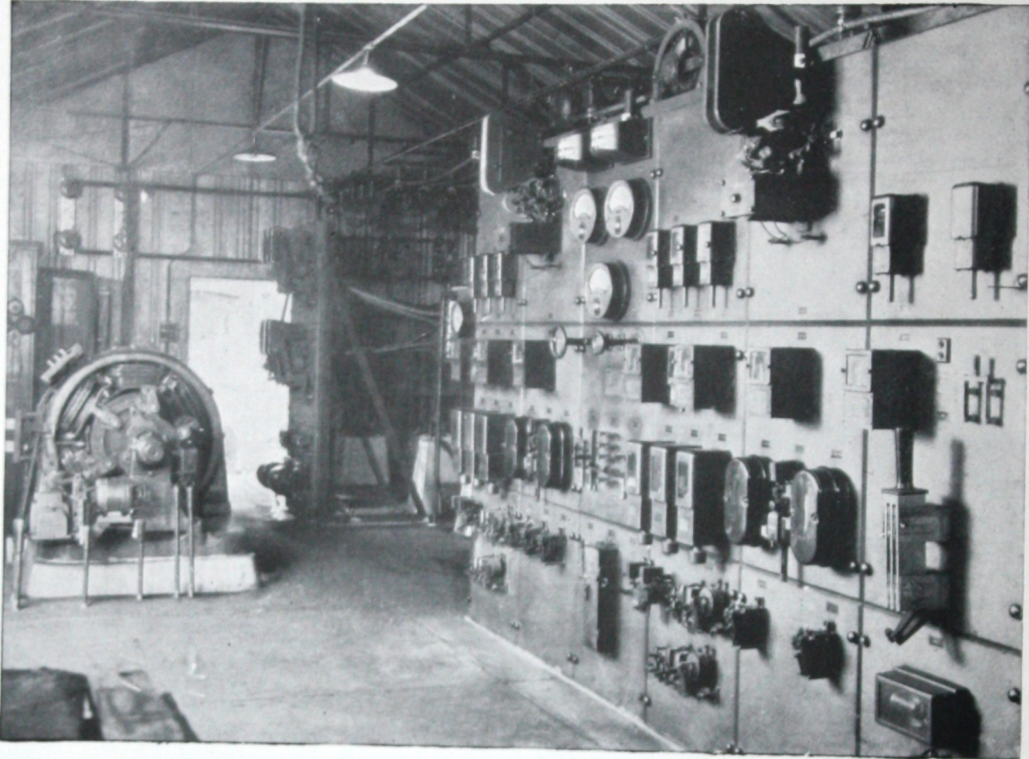


## GENERAL ELECTRIC

### SYNCHRONOUS CONVERTERS FOR MINING AND INDUSTRIAL SERVICE

These equipments are built in standard sizes and can be provided with either stub or stub-multiple feeders.

The stations can be started either by remote control or, if the system layout permits, by energizing the high tension lines. The equipment maintains service and protects itself under all conditions of operation.



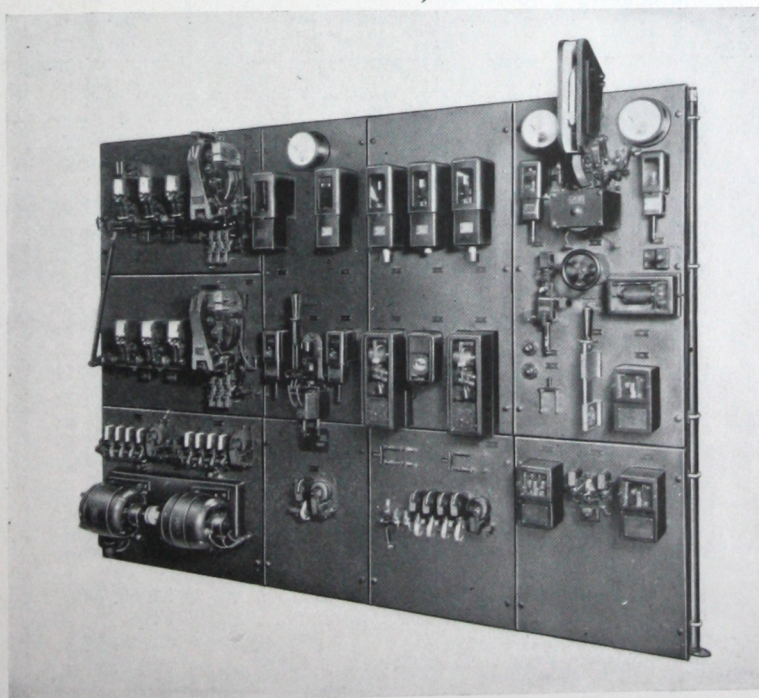
Automatic Switching Equipment, Itman Station No. 1, Appalachian Power Co., Bluefield, W. Va., for Controlling Two 275-volt Synchronous Converters of 200- and 300-kw. Capacity, Respectively, and Stub-multiple D-c. Reclosing Feeder

| Company                        | Address           | Station           | Apparatus    | Kw.<br>Capacity<br>(Each) | VOLTAGE  |          |
|--------------------------------|-------------------|-------------------|--------------|---------------------------|----------|----------|
|                                |                   |                   |              |                           | Incoming | Outgoing |
| Appalachian Power Co.          | Bluefield, W. Va. | Eckman            | 2 Syn. Conv. | 300                       | 13,000   | 275      |
| "                              | "                 | Itman No. 1       | 2 Syn. Conv. | 200 & 300                 | 13,200   | 275      |
| "                              | "                 | Itman No. 4       | 1 Syn. Conv. | 300                       | 13,200   | 275      |
| "                              | "                 | Cherokee          | 1 Syn. Conv. | 300                       | 13,200   | 550      |
| "                              | "                 | Bossevain Sub.    | 1 Syn. Conv. | 500                       | 13,200   | 550      |
| "                              | Faraday, W. Va.   |                   | 1 Syn. Conv. | 300                       | 13,200   | 275      |
| Benedict Coal Corp.            | Benedict, Va.     |                   | 2 Syn. Conv. | 200                       | 4000     | 275      |
| Black Diamond Coal Co.         | Drakesboro, Ky.   |                   | 1 Syn. Conv. | 300                       | 2300     | 275      |
| Blue Diamond Coal Co.          | St. Charles, Va.  |                   | 1 Syn. Conv. | 200                       | 2300     | 275      |
| Campbell Coal Mining Co.       | Westbourne, Tenn. |                   | 3 Syn. Conv. | 200                       | 2300     | 275      |
| Carbon Fuel Co.                | Carbon, W. Va.    | S. Carbon, W. Va. | 1 Syn. Conv. | 200                       | 2300     | 275      |
| Clearfield Bituminous Coal Co. | Rossiter, Pa.     | Pleasant Hill     | 1 Syn. Conv. | 200                       | 2300     | 275      |
| "                              | "                 | Grass Flat, Pa.   | 1 Syn. Conv. | 200                       | 2300     | 275      |
| "                              | "                 | Sample Run        | 1 Syn. Conv. | 300                       | 6600     | 575      |
| "                              | "                 | Barr              | 1 Syn. Conv. | 300                       | 6600     | 550      |
| Colorado Fuel & Iron Co.       | Denver, Colo.     |                   | 1 Syn. Conv. | 300                       | 440      | 550      |
| Columbus Mining Co.            | Allais, Ky.       | Mine No. 5B       | 1 Syn. Conv. | 200                       | 2400     | 275      |
| Consolidation Coal Co.         | Jenkins, Ky.      |                   | 2 Syn. Conv. | 150                       | 40,000   | 275      |



# AUTOMATIC STATIONS

| Company                               | Address               | Station               | Apparatus    | Kw.<br>Capacity<br>(Each) | VOLTAGE  |          |
|---------------------------------------|-----------------------|-----------------------|--------------|---------------------------|----------|----------|
|                                       |                       |                       |              |                           | Incoming | Outgoing |
| Dennison Mfg. Co.....                 | Framingham, Mass..... |                       | 2 Syn. Conv. | 300, 330                  | 13,200   | 250      |
| Elkhorn Coal Co.....                  | Wayland, Ky.....      |                       | 1 Syn. Conv. | 200                       | 4000     | 275      |
| “                                     | “                     |                       | 1 Syn. Conv. | 200                       | 2300     | 275      |
| “                                     | Wheelwright, Ky.....  |                       | 1 Syn. Conv. | 150                       | 40,000   | 275      |
| Fordson Coal Co.....                  | Walkins, Ky.....      | Mine No. 2 .....      | 1 Syn. Conv. | 200                       | 2300     | 275      |
| “                                     | Stone,, Ky.....       |                       | 1 Syn. Conv. | 200                       | 11,000   | 300      |
| “                                     | “                     |                       | 1 Syn. Conv. | 200                       | 2300     | 275      |
| Goldfields American Developm't Co...  | Colombia, S. A.....   |                       | 1 Syn. Conv. | 500                       | 6600     |          |
| Hardy Burlingham Mining Co.....       | Hardburly, Ky.....    |                       | 1 Syn. Conv. | 150                       | 2300     | 275      |
| “                                     | “                     |                       | 1 Syn. Conv. | 300                       | 2300     | 275      |
| King Harlan Company.....              | Kildare, Ky.....      |                       | 1 Syn. Conv. | 150                       | 4000     | 275      |
| Lehigh Valley Coal Co.....            | Wilkesbarre, Pa.....  | Drifton Colliery..... | 1 Syn. Conv. | 200                       | 4600     | 275      |
| “                                     | “                     |                       | 1 Syn. Conv. | 200                       | 4000     | 275      |
| M. A. Hanna & Co.....                 | Duluth, Minn.....     |                       | 1 Syn. Conv. | 300                       | 22,000   | 600      |
| New River & Pocahontas Cons. Coal Co. | Philadelphia, Pa..... | Minden, W. Va.....    | 1 Syn. Conv. | 500                       | 2300     | 275      |
| “                                     | “                     | Layland, W. Va.....   | 1 Syn. Conv. | 500                       | 2300     | 275      |
| Pennsylvania Coal Co.....             | Pittston, Pa.....     | No. 14 Colliery.....  | 1 Syn. Conv. | 300                       | 4000     | 275      |
| Pennsylvania Mary Coal Co.....        | S. Bethlehem, Pa..... | Tibbs Run, W. Va..... | 1 Syn. Conv. | 300                       | 2300     | 275      |
| R. C. Tway Coal Co.....               | Bland, Ky.....        |                       | 1 Syn. Conv. | 200                       | 2300     | 275      |
| Royal Dutch Blast Furnace.....        | Holland.....          |                       | 3 Syn. Conv. | { 2-500 &<br>1-300 }      | 6000     | 550      |
| Southern Mining Co.....               | Balkan, Ky.....       | Balkan.....           | 1 Syn. Conv. | 150                       | 2300     | 275      |
| Wynn Coal Co.....                     | Cotula, Tenn.....     |                       | 1 Syn. Conv. | 200                       | 2300     | 275      |



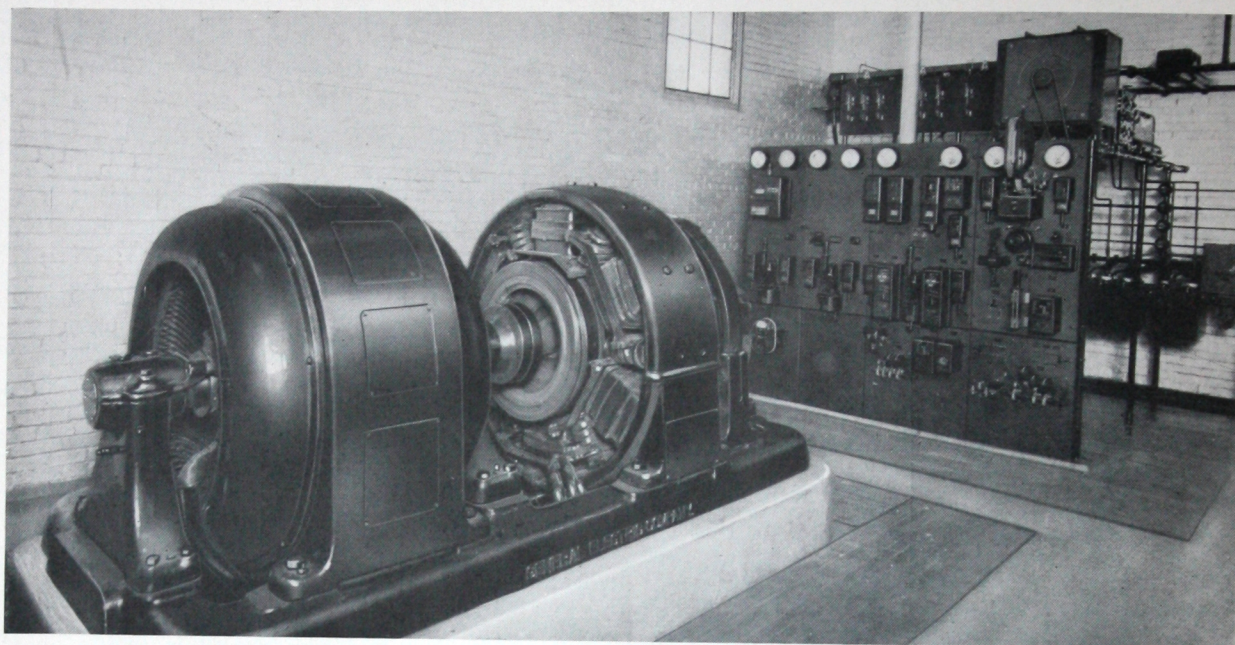
Automatic Switching Equipment, Elkhorn Coal Corp., Wayland, Ky. Synchron-  
ous Converter, 275 Volts D-c., 200 Kw., 6-phase, 6-wire, 60 Cycles



# GENERAL ELECTRIC

## SYNCHRONOUS MOTOR-GENERATORS FOR MINING AND INDUSTRIAL SERVICE

These equipments are for service similar to that previously described for synchronous converters.



Automatic Switching Equipment, Lorain Steel Company, Johnstown, Pa., Controlling 275-volt, 300-kw., Synchronous Motor-generator and D-c. Reclosing Feeder

| Company                                   | Address               | Station            | Apparatus   | Kw.<br>Capacity<br>(Each) | VOLTAGE  |          |
|---|-----------------------|--------------------|-------------|---------------------------|----------|----------|
|   |                       |                    |             |                           | Incoming | Outgoing |
| American Casting Co.....                  | Birmingham, Ala.....  | .....              | 1 Syn. M-g. | 150                       | 2300     | 275      |
| Anglo-Chilean Con. Nitrate Corp.....      | Chile, S. A.....      | .....              | 2 Syn. M-g. | 300                       | 2300     | 600      |
| Appalachian Power Co.....                 | Bluefield, W. Va..... | Caswell Creek..... | 1 Syn. M-g. | 300                       | 2300     | 600      |
| "   | "                     | West Guerdon.....  | 1 Syn. M-g. | 500                       | 2300     | 275      |
| Blackwood Coal & Coke Co.....             | Blackwood, Va.....    | .....              | 1 Syn. M-g. | 200                       | 2300     | 275      |
| "   | Bundy, Va.....        | Calvin Mine.....   | 1 Syn. M-g. | 200                       | 2300     | 275      |
| Buckeye Coal Co.....                      | Youngstown, Ohio..... | .....              | 1 Syn. M-g. | 300                       | 2300     | 275      |
| "   | "                     | Nemacolin.....     | 1 Syn. M-g. | 300                       | 2300     | 275      |
| Buffalo & Susquehanna Coal & Coke Co..... | Du Bois, Pa.....      | .....              | 2 Syn. M-g. | 300                       | 2300     | 500      |
| Carrolltown Coal Co.....                  | St. Benedict, Pa..... | .....              | 1 Syn. M-g. | 200                       | 2300     | 275      |
| "   | "                     | .....              | 1 Syn. M-g. | 200                       | 2200     | 275      |
| Carnegie Coal Co.....                     | Atlasburg, Pa.....    | .....              | 1 Syn. M-g. | 200                       | 2300     | 275      |
| Cerro De Pasco Copper Corp.....           | Peru.....             | .....              | 1 Syn. M-g. | 2000                      | 2300     | .....    |
| Clearfield Bituminous Coal Co.....        | Rossiter, Pa.....     | Rossiter, Pa.....  | 1 Syn. M-g. | 300                       | 6000     | 275      |
| "   | "                     | .....              | 1 Syn. M-g. | 300                       | 22,000   | 550      |
| Cochran Coal Co.....                      | Salina, Pa.....       | .....              | 1 Syn. M-g. | 150                       | 2300     | 275      |
| Corona Coal Co.....                       | Towndy, Ala.....      | South Side.....    | 1 Syn. M-g. | 150                       | 2300     | 275      |
| Cranberry Fuel Co.....                    | Skelton, W. Va.....   | No. 2 Mine.....    | 2 Syn. M-g. | 150                       | 2300     | 600      |
| Debardeleven Coal Co.....                 | Coal Valley, Ala..... | Cowhide.....       | 1 Syn. M-g. | 150                       | 2300     | 275      |
| Diamond Coal Company.....                 | Upland, Ky.....       | .....              | 1 Syn. M-g. | 150                       | 2300     | 250/275  |
| Duquesne Coal & Coke Co.....              | Avella, Pa.....       | .....              | 2 Syn. M-g. | 200                       | 2300     | 275      |
| Lorain Steel Company.....                 | Johnstown, Pa.....    | .....              | 1 Syn. M-g. | 300                       | 2200     | 275      |
| Elk River Coal & Lumber Co.....           | Widen, W. Va.....     | .....              | 1 Syn. M-g. | 150                       | 2300     | 275      |
| "   | "                     | .....              | 1 Syn. M-g. | 300                       | 2300     | 250/275  |
| "   | "                     | .....              | 1 Syn. M-g. | 150                       | 2300     | 275      |



# AUTOMATIC STATIONS

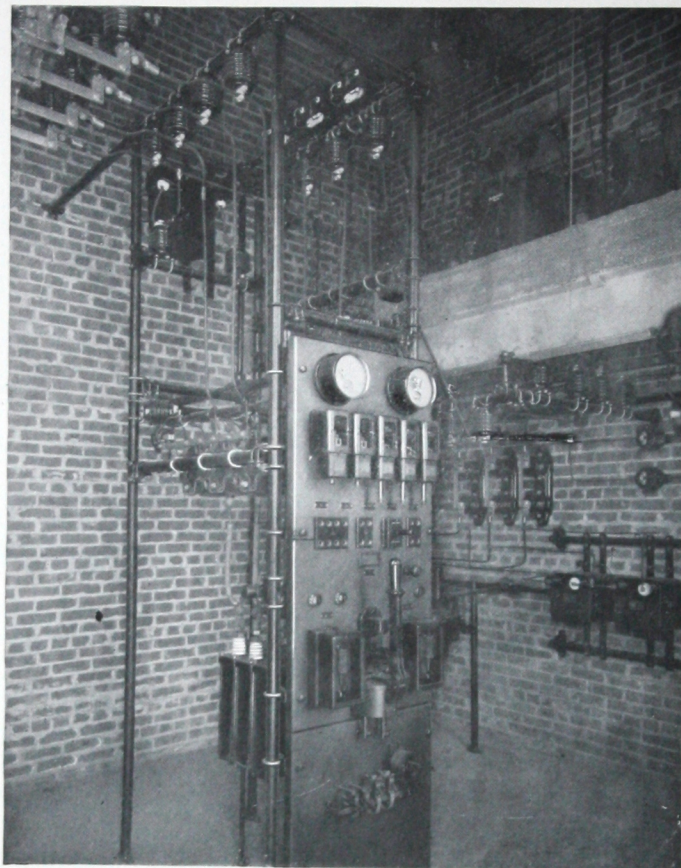
| Company                                | Address               | Station                   | Apparatus   | Kw.<br>Capacity<br>(Each) | VOLTAGE  |          |
|--|-----------------------|---------------------------|-------------|---------------------------|----------|----------|
|  |                       |                           |             |                           | Incoming | Outgoing |
| Frick, H. C., Coke Co.                 | Scottdale, Pa.        | Footdale, Mine.           | 2 Syn. M-g. | 300                       | 2300     | 275      |
| "                                      | "                     | Margurite Mine.           | 1 Syn. M-g. | 300                       | 2300     | 575      |
| "                                      | Monarch, Pa.          | Leisenring No. 3 Mine.    | 1 Syn. M-g. | 300                       | 2300     | 575      |
| Heisley Coal Co.                       | Nanty-Glo, Pa.        |                           | 1 Syn. M-g. | 300                       | 2300     | 275      |
| Hillman Coal & Coke Co.                | Jerome, Pa.           |                           | 1 Syn. M-g. | 300                       | 2300     | 275      |
| Hudson Coal Co.                        | Scranton, Pa.         |                           | 1 Syn. M-g. | 300                       | 2080     | 300      |
| Independent Coal & Coke Co.            | Salt Lake City, Utah. |                           | 1 Syn. M-g. | 200                       | 2300     | 275      |
| Inspiration Consolidated Copper Co.    |                       |                           | 3 Syn. M-g. | 150                       | 2300     | 250/275  |
| Jeddo Highland Coal Co.                | Jeddo, Pa.            |                           | 2 Syn. M-g. | 300                       | 2300     | 250/275  |
| Laclede Steel Co.                      | Federal, Ill.         | Scarboro.                 | 1 Syn. M-g. | 500                       | 2300     | 250      |
| Lehigh Valley Coal Co.                 | Wilkesbarre, Pa.      | Dorrance Colliery.        | 2 Syn. M-g. | 1-200<br>1-300            | 2300     | 275      |
| "                                      | "                     | Spring Mountain.          | 1 Syn. M-g. | 200                       | 2300     | 275      |
| "                                      | "                     | Mt. Carmel.               | 2 Syn. M-g. | 150 & 200                 | 440      | 275      |
| "                                      | "                     | "                         | 1 Syn. M-g. | 200                       | 440      | 275      |
| Mather Collieries.                     | Mather, Pa.           |                           | 1 Syn. M-g. | 200                       |          | 275      |
| McDowell Coal & Coke Co.               | McDowell, W. Va.      |                           | 1 Syn. M-g. | 300                       | 2300     | 550      |
| McKinney Steel Co.                     | Wolf Pit, Ky.         | Wolf Pit Coal Mines.      | 1 Syn. M-g. | 200                       | 4000     | 275      |
| "                                      | "                     | Wolf Pit Coal Mines.      | 2 Syn. M-g. | 200                       | 4000     | 275      |
| "                                      | Cleveland, Ohio.      |                           | 3 Syn. M-g. | 1400                      |          | 6600     |
| Merchants Coal Corp.                   | Tunnelton, W. Va.     | No. 1 & No. 2.            | 2 Syn. M-g. | 150                       | 2300     | 275      |
| Monroe Coal Mining Co.                 | Revloc, Pa.           |                           | 1 Syn. M-g. | 300                       | 2300     | 275      |
| Mount Olive & Staunton Coal Co.        | Staunton, Ill.        | Nos. 1, 2, 3, 4.          | 4 Syn. M-g. | 200                       | 2300     | 275      |
| National Mining Co.                    | Cowden, Pa.           |                           | 2 Syn. M-g. | 300                       | 2300     | 575      |
| "                                      | "                     |                           | 1 Syn. M-g. | 500                       | 2300     | 575      |
| New England Fuel & Transportation Co.  | Barrackville, W. Va.  |                           | 1 Syn. M-g. | 200                       | 2200     | 275      |
| Otis Steel Company.                    | Cleveland, Ohio.      |                           | 1 Syn. M-g. | 1500                      | 6600     | 250      |
| Pennsylvania Coal & Coke Co.           | Gorman's Mills, Pa.   | Moss Creek.               | 2 Syn. M-g. | 150                       | 2300     | 275      |
| "                                      | "                     | Moss Creek No. 22.        | 1 Syn. M-g. | 200                       | 2300     | 275      |
| "                                      | "                     | Moss Creek No. 21.        | 1 Syn. M-g. | 100                       | 2300     | 275      |
| Philadelphia & Reading Coal & Iron Co. | Pottsville, Pa.       | Locust Gap, Pa.           | 1 Syn. M-g. | 300                       | 2300     | 275      |
| "                                      | "                     | Maple Hill Colliery.      | 1 Syn. M-g. | 300                       | 2300     | 275      |
| "                                      | "                     |                           | 2 Syn. M-g. | 300                       | 2300     | 275      |
| "                                      | "                     | Creek Colliery.           | 1 Syn. M-g. | 300                       | 2300     | 275      |
| Pittsburgh Coal Co.                    | Library, Pa.          |                           | 1 Syn. M-g. | 150                       | 2300     | 550      |
| "                                      | Pittsburgh, Pa.       | Crescent Mine Sub. No. 2. | 1 Syn. M-g. | 750                       | 2300     | 575      |
| "                                      | Scott Haven, Pa.      | Warden Mine.              | 2 Syn. M-g. | 1-300, 1-750              | 2300     | 600      |
| Portsmouth By-Product Coke Co.         | Portsmouth, Ohio.     | Delorme, W. Va.           | 1 Syn. M-g. | 200                       | 2200     | 275      |
| Preston County Coke Co.                | Cascade, W. Va.       |                           | 1 Syn. M-g. | 300                       | 2300     | 275      |
| Quemahoning Coal Co.                   | Somerset, Pa.         | No. 1.                    | 1 Syn. M-g. | 150                       | 2300     | 275      |
| "                                      | "                     | No. 2.                    | 1 Syn. M-g. | 150                       | 2300     | 275      |
| Reading Iron Co.                       | Stoyestown, Pa.       | Reading Mills No. 3.      | 1 Syn. M-g. | 200                       | 2200     | 275      |
| Republic Iron & Steel Co.              | Martin, Pa.           | Martin Coke Works.        | 1 Syn. M-g. | 200                       | 2300     | 275      |
| "                                      | Republic, Pa.         |                           | 1 Syn. M-g. | 200                       | 2200     | 275      |
| Retsof Mining Co.                      | Retsof, N. Y.         | No. 4.                    | 1 Syn. M-g. | 300                       | 2300     | 275      |
| Rimerton Coal Co.                      | Rimerton, Pa.         |                           | 1 Syn. M-g. | 150                       | 2300     | 275      |
| Shannopin Coal Co.                     | Pittsburgh, Pa.       | "A"                       | 2 Syn. M-g. | 500                       | 6900     | 575      |
| Shawmut Mining Co.                     | St. Mary's, Pa.       | Mine No. 31.              | 1 Syn. M-g. | 200                       | 2200     | 275      |
| "                                      | "                     | Mine No. 42.              | 1 Syn. M-g. | 200                       | 2200     | 275      |
| "                                      | "                     |                           | 1 Syn. M-g. | 200                       | 2200     | 275      |
| Star Coal & Coke Co.                   | Red Star, W. Va.      |                           | 2 Syn. M-g. | 150                       | 2300     | 550      |
| Standard Oil Co.                       | New York City.        |                           | 3 Balancers | 100                       | 240      | 60       |
| Susquehanna Collieries Co.             | Glen Lyon, Pa.        | No. 6 Colliery.           | 1 Syn. M-g. | 300                       | 2300     | 275      |
| Temple Coal Co.                        | Luzerne, Pa.          |                           | 1 Syn. M-g. | 200                       | 2300     | 250/275  |
| University of Colorado.                | Boulder, Colo.        | University.               | 1 Syn. M-g. | 88                        | 2300     | 125      |
| West Kentucky Coal Co.                 | Wheatcroft, Ky.       |                           | 3 Syn. M-g. | 200                       | 2300     | 275      |
| White Oak Fuel Co.                     | Carlisle, W. Va.      | Whipple Mine.             | 2 Syn. M-g. | 150                       | 2300     | 275/300  |



# GENERAL ELECTRIC

## RAILWAY SIGNAL EQUIPMENT

Automatic railway signal feeder equipments supply continuous power to signal circuits. Power is usually supplied from two sources and if the connected source fails, the equipment automatically connects the other source.



Automatic Switching Equipment for 3-phase, Two-circuit, 45-kw. Railway Signal Feeder, Operating at 6600/4400 Volts. Chillicothe Station of Atchison, Topeka and Santa Fe R.R.

| Company                              | Address           | Station           | Classification                                       | Kw.    | VOLTAGE   |           |
|--------------------------------------|-------------------|-------------------|--|--------|-----------|-----------|
|                                      |                   |                   |  |        | Supply    | Feeder    |
| Atchison, Topeka & Santa Fe R.R..... | Topeka, Kans..... | Chillicothe.....  | 1 Incoming Line and Two Circuit, 3-phase Feeder..... | 45     | 2300/4000 | 6600/4000 |
| "                                    | "                 | Corwith.....      | 1 Single Circuit, 3-phase Feeder, Outdoor Station... | 22 1/2 | 2300      | 4400      |
| "                                    | "                 | Ft. Madison.....  | 1 Single Circuit, 3-phase Feeder.....                | 40     | 220       | 6600      |
| "                                    | "                 | Galesburg.....    | 1 Two Circuit, 3-phase Feeder.....                   | 45     | 2200      | 6600      |
| "                                    | "                 | So. Joliet.....   | 1 Single Circuit, 3-phase Feeder, Outdoor Station... | 45     | 2300/4000 | 4400      |
| "                                    | "                 | Streator.....     | 1 Incoming Line and Two Circuit, 3-phase Feeder..... | 45     | 2300/4000 | 4400      |
| "                                    | "                 | North Joliet..... | 1 Single Circuit, 3-phase Feeder.....                | 22 1/2 | 2300/4000 | 4400      |



# AUTOMATIC STATIONS

| Company                                 | Address            | Station             | Classification                                    | Kw.    | VOLTAGE  |        |
|---|--------------------|---------------------|---|--------|----------|--------|
|   |                    |                     |   |        | Supply   | Feeder |
| Baltimore & Ohio R.R.....               | Baltimore, Md..... | Connelsville.....   | 1 Single Circuit, 3-phase Feeder.....             | 22 1/2 | 2200     | 6600   |
| "                                       | "                  | Cumberland.....     | 1 Single Circuit, 3-phase Feeder.....             | 22 1/2 | 2200     | 6600   |
| "                                       | "                  | Rockwood.....       | 1 Two Circuit, 3-phase Feeder.....                | 45     | 2200     | 6600   |
| Boston & Maine R.R. Co.                 | Boston, Mass.....  | Tower H.....        | 1 Single Circuit, Single-phase Feeder.....        | 0.55   | 550      | 550    |
| "                                       | "                  | Concord.....        | 1 Double Circuit, Single-phase Feeder.....        | 1.10   | 550      | 550    |
| "                                       | "                  | Ayer.....           | 1 Double Circuit, Single-phase Feeder.....        | 1.10   | 550      | 550    |
| "                                       | "                  | Fitchburg.....      | 1 Double Circuit Single-phase Feeder.....         | 1.10   | 550      | 550    |
| "                                       | "                  | Gardner.....        | 1 Double Circuit, Single-phase Feeder.....        | 1.10   | 550      | 550    |
| "                                       | "                  | Athol.....          | 1 Double Circuit, Single-phase Feeder.....        | 1.10   | 550      | 550    |
| "                                       | "                  | East Deerfield..... | 1 Single Circuit, Single-phase Feeder.....        | 0.55   | 550      | 550    |
| Canadian Nat. Ry. ....                  | Montreal, Can..... | Elsdon.....         | 1 Two Circuit, Single-phase Feeder.....           | 20     | 2100     | 4500   |
| Chicago, Rock Island & Pacific R.R..... | Chicago, Ill.....  | Englewood.....      | 1 Two Source, Single Circuit, 3-phase Feeder..... | 5      | 2200/440 | 1100   |
| "                                       | "                  | Gresham.....        | 1 Two Source, Single Circuit, 3-phase Feeder..... | 5      | 2200     | 1100   |
| Delaware, Lackawanna & Western R.R..... | Hoboken, N. J..... | Bath.....           | 1 Two Circuit, Single-phase Feeder.....           | 1 1/2  | 2300     | 550    |
| "                                       | "                  | Dansville.....      | 1 Two Circuit, Single-phase Feeder.....           | 1 1/2  | 2300     | 550    |
| "                                       | "                  | East Bethany.....   | 1 Two Circuit, Single-phase Feeder.....           | 1 1/2  | 4600     | 550    |
| "                                       | "                  | East Bethany.....   | 1 Auto. Frequency Control Equipment.....          | ..     | ....     | ...    |
| "                                       | "                  | Elmira.....         | 1 Single Circuit, Single-phase Feeder.....        | 3/4    | 2300     | 550    |
| "                                       | "                  | Harrison.....       | 1 Two Source, Single Circuit, 3-phase Feeder..... | 100    | 6600     | 6600   |
| "                                       | "                  | Lancaster.....      | 1 Single Circuit, Single-phase Feeder.....        | 1 1/2  | 4600     | 550    |
| "                                       | "                  | Lancaster.....      | 1 Auto. Frequency Control Equipment.....          | ....   | ....     | ...    |
| Illinois Central R.R.....               | Chicago, Ill.....  | Branch Jct.....     | 1 Single Circuit, Single-phase Feeder.....        | 0.375  | 550      | 550    |
| "                                       | "                  | Champaign.....      | 1 Single Circuit, Single-phase Feeder.....        | 0.375  | 550      | 550    |
| "                                       | "                  | Hawthorne.....      | 1 Single Circuit, 3-phase Feeder.....             | 25     | 4400     | 4400   |
| "                                       | "                  | Tuscola.....        | 1 Two Circuit, Single-phase Feeder.....           | 3/4    | 550      | 550    |
| "                                       | "                  | Ash St.....         | 1 Single Circuit, 3-phase Feeder.....             | 25     | 4400     | 4400   |
| "                                       | "                  | Mattoon.....        | 2 Single Circuit, Single-phase Feeders.....       | 3/4    | 550      | 550    |
| "                                       | "                  | Effingham.....      | 2 Single Circuit, Single-phase Feeders.....       | 3/4    | 550      | 550    |
| "                                       | "                  | Edgewood.....       | 2 Single Circuit, Single-phase Feeders.....       | 3/4    | 550      | 550    |
| "                                       | "                  | Kinmudy.....        | 2 Single Circuit, Single-phase Feeders.....       | 3/4    | 550      | 550    |
| "                                       | "                  | Waterloo.....       | 1 Single Circuit, Single-phase Feeder.....        | 0.375  | 550      | 550    |
| "                                       | "                  | Fort Dodge.....     | 1 Single Circuit, Single-phase Feeder.....        | 0.375  | 550      | 550    |
| "                                       | "                  | Parkersburg.....    | 1 Single Circuit, Single-phase Feeder.....        | 3/4    | 550      | 550    |



# GENERAL ELECTRIC

| Company   | Address                   | Station                     | Classification   | Kw.           | VOLTAGE |        |
|---|---------------------------|-----------------------------|--|---------------|---------|--------|
|   |                           |                             |  |               | Supply  | Feeder |
| Illinois Central R.R. . . . .                   | Chicago, Ill. . . . .     | Austinvile. . . . .         | 1 Single Circuit, Single-phase Feeder . . . . .  | $\frac{3}{4}$ | 550     | 550    |
| "   | "                         | Iowa Falls. . . . .         | 1 Single Circuit, Single-phase Feeder . . . . .  | $\frac{3}{4}$ | 550     | 550    |
| "   | "                         | Williams. . . . .           | 1 Single Circuit, Single-phase Feeder . . . . .  | $\frac{3}{4}$ | 550     | 550    |
| "   | "                         | Webster City. . . . .       | 1 Single Circuit, Single-phase Feeder . . . . .  | $\frac{3}{4}$ | 550     | 550    |
| "   | "                         | Dincombe. . . . .           | 1 Single Circuit, Single-phase Feeder . . . . .  | $\frac{3}{4}$ | 550     | 550    |
| "   | "                         | Hawthorne. . . . .          | 1 Sectionalizing Equipment, 3-phase. . . . .   | 38            | 4400    | 4400   |
| Louisville & Nashville R. R. Co. . . . .        | Louisville, Ky. . . . .   | Etowah. . . . .             | 1 Single Circuit, Single-phase Feeder . . . . .  | 0.357         | 440     | 440    |
| "   | "                         | { Nashville (Randor Yard) } | 1 Two Source, Two Circuit, Single-phase Feeder. . . . .                                      | 15            | 2200    | 2200   |
| "   | "                         | Etowah. . . . .             | 1 Auto. M-g. Control Equipment. . . . .  | 0.357         | D.C.    | 440    |
| "   | "                         | Madisonville. . . . .       | 1 Single Circuit, Single-phase Feeder . . . . .  | 0.357         | 440     | 440    |
| "   | "                         | Madisonville. . . . .       | 1 Single Circuit, Single-phase Feeder . . . . .  | $\frac{1}{2}$ | 550     | 550    |
| "   | "                         | W. Knoxville. . . . .       | 1 Single Circuit, Single-phase Feeder . . . . .  | 1             | 550     | 550    |
| "   | "                         | Coal Creek. . . . .         | 1 Single Circuit, Single-phase Feeder . . . . .  | 1             | 550     | 550    |
| "   | "                         | La Follet. . . . .          | 1 Single Circuit, Single-phase Feeder . . . . .  | 1             | 550     | 550    |
| "   | "                         | Jellico. . . . .            | 1 Single Circuit, Single-phase Feeder . . . . .  | 1             | 550     | 550    |
| "   | "                         | Corbin. . . . .             | 1 Single Circuit, Single-phase Feeder . . . . .  | $\frac{1}{2}$ | 550     | 550    |
| "   | "                         | Mobile. . . . .             | 1 Single Circuit, Single-phase Feeder . . . . .  | 0.55          | 550     | 550    |
| "   | "                         | Pascagoula. . . . .         | 1 Double Circuit, Single-phase Feeder . . . . .  | 1.10          | 550     | 550    |
| "   | "                         | Biloxie. . . . .            | 1 Double Circuit, Single-phase Feeder . . . . .  | 1.10          | 550     | 550    |
| "   | "                         | Bay St. Louis. . . . .      | 1 Double Circuit, Single-phase Feeder . . . . .  | 1.10          | 550     | 550    |
| "   | "                         | Gentilly. . . . .           | 1 Single Circuit, Single-phase Feeder . . . . .  | 0.55          | 550     | 550    |
| Madrid Zaregossa Alicante R.R. . . . .          | Barcelona, Spain. . . . . |                             | { 2 Two Circuit, Single-phase Feeders. . . . . }   | 10            | 210     | 2300   |
| New York, New Haven & Hartford R.R. Co. . . . . | New Haven, Conn. . . . .  | Hartford. . . . .           | { 2 Battery Charging Equipments. . . . . }   | $\frac{3}{4}$ | 220     | 375 DC |
| Pennsylvania R.R. Co. . . . .                   | Philadelphia, Pa. . . . . | York. . . . .               | { 2 Single Circuit, Single-phase Feeders and 2 Motor-generator Control Equipments. . . . . } | 100           | 2300    | 6600   |
| "   | "                         | Baltimore. . . . .          | 1 Single Circuit, Single-phase Feeder nad 1 Motor-generator Control Equipment. . . . .       | 50            | 2300    | 6600   |
| "   | "                         | Lemoyne. . . . .            | 1 Single Circuit, Single-phase Feeder and 1 Motor-generator Control Equipment. . . . .       | 50            | 2300    | 6600   |
| "   | "                         | Parkton. . . . .            | 1 Sectionalizing Equipment. . . . .  | 50            | 6600    | 6600   |
| "   | "                         | Indianapolis, Ind. . . . .  | 1 Single Circuit, Single-phase Feeder and Motor-generator Set. . . . .                       | 19            | 2300    | 6600   |
| "   | "                         | Knightstown, Ind. . . . .   | 1 Double Circuit, Single-phase Feeder and Motor-generator Set. . . . .                       | 40            | 2300    | 6600   |



# AUTOMATIC STATIONS

| Company   | Address                   | Station                        | Classification   | Kw.  | VOLTAGE |        |
|---|---------------------------|--------------------------------|--|------|---------|--------|
|   |                           |                                |  |      | Supply  | Feeder |
| Pennsylvania R. R. Co. . . .                    | Philadelphia, Pa. . . .   | Richmond, Ind. . . . .         | { 2 Double Circuit, Single-phase<br>Feeders and Motor-genera-<br>tor Set. . . . .                              | 51   | 2300    | 6600   |
| "   | "                         | Piqua, Ohio. . . . .           | { 2 Double Circuit, Single-phase<br>Feeders and Motor-genera-<br>tor Set. . . . .                              | 51   | 2300    | 6600   |
| "   | "                         | Urbana, Ohio. . . . .          | { 1 Double Circuit, Single-phase<br>Feeder and Motor-genera-<br>tor Set. . . . .                               | 53   | 2300    | 6600   |
| "   | "                         | Columbus, Ohio. . . . .        | { 1 Single Circuit, Single-phase<br>Feeder and Motor-genera-<br>tor Set. . . . .                               | 32.5 | 2300    | 6600   |
| "   | "                         | Greenfield, Ind. . . . .       | { 1 Sectionalizing Equipment. .  | 33   | 6600    | 6600   |
| "   | "                         | Dublin, Ind. . . . .           | { 1 Sectionalizing Equipment. .  | 33   | 6600    | 6600   |
| "   | "                         | Greenville, Ohio. . . . .      | { 1 Sectionalizing Equipment. .  | 11   | 6600    | 6600   |
| "   | "                         | Milford Center, Ohio . . . . . | { 1 Sectionalizing Equipment. .  | 11   | 6600    | 6600   |
| "   | "                         | Camden, N. J. . . . .          | { 1 Single Circuit, Single-phase<br>Feeder and Motor-genera-<br>tor Set. . . . .                               | 47   | 2300    | 6600   |
| "   | "                         | Atlantic, N. J. . . . .        | { 1 Single-Circuit, Single phase<br>Feeder and Motor-genera-<br>tor Set. . . . .                               | 47   | 2300    | 6600   |
| "   | "                         | Hammonton, N. J. . . . .       | { 1 Double Circuit, Single-phase<br>Feeder and Motor-genera-<br>tor Set. . . . .                               | 47   | 2300    | 6600   |
| Reading Co. . . . .                             | Philadelphia, Pa. . . . . | Lebanon. . . . .               | { 1 Single Circuit, 3-phase<br>Feeder. . . . .   | 30   | 2200    | 4400   |
| "   | "                         | Myerstown. . . . .             | { 1 Two Circuit, 3-phase<br>Feeder. . . . .  | 60   | 2200    | 4400   |
| "   | "                         | Atlantic City. . . . .         | { 1 Single Circuit, 3-phase<br>Feeder. . . . .   | 42   | 2200    | 4400   |
| "   | "                         | Camden. . . . .                | { 1 Single Circuit, 3-phase<br>Feeder. . . . .   | 38   | 4400    | 4400   |
| "   | "                         | Hammonton. . . . .             | { 1 Two Circuit, 3-phase<br>Feeder. . . . .  | 80   | 2200    | 4400   |
| Richmond, Fredericks-<br>burg & Potomac R.R.. } | Richmond, Va. . . . .     | Fredericksburg. . . . .        | { 1 Two Circuit, Single-phase<br>Feeder. . . . .   | 40   | 220     | 6600   |
| "   | "                         | Richmond. . . . .              | { 1 Single Circuit, Single-phase<br>Feeder. . . . .  | 20   | 220     | 6600   |
| "   | "                         | Washington. . . . .            | { 1 Single Circuit, Single-phase<br>Feeder. . . . .  | 20   | 220     | 6600   |
| "   | "                         | Fredericksburg. . . . .        | { 2 Single Circuit, Single-phase<br>Feeders. . . . .<br>3 Frequency Converter Con-<br>trol Equipments. . . . . | 100  | 2300    | 6600   |
| Seaboard Air Line R.R. Co.                      | Atlanta, Ga. . . . .      | Baldwin. . . . .               | { 1 Single Circuit, Single-phase<br>Feeder. . . . .  | 10   | 2300    | 4400   |
| "   | "                         | Jacksonville. . . . .          | { 1 Double Circuit, Single-phase<br>Feeder. . . . .  | 25   | 2300    | 4400   |
| Union Pacific System. . . . .                   | Omaha, Neb. . . . .       | Cheyenne. . . . .              | { 1 Single Circuit, Single-phase<br>Feeder. . . . .  | 7½   | 2300    | 2300   |
| "   | "                         | Kimball. . . . .               | { 1 Single Circuit, Single-phase<br>Feeder. . . . .  | 7½   | 2300    | 2300   |
| "   | "                         | Pine Bluffs. . . . .           | { 1 Single Circuit, Single-phase<br>Feeder. . . . .  | 7½   | 2300    | 2300   |
| "   | "                         | Sidney. . . . .                | { 1 Single Circuit, Single-phase<br>Feeder. . . . .  | 7½   | 2300    | 2300   |
| "   | "                         | North Platte. . . . .          | { 1 Single Circuit, Single-phase<br>Feeder. . . . .  | 7½   | 2300    | 2300   |
| "   | "                         | Ogallala. . . . .              | { 1 Single Circuit, Single-phase<br>Feeder. . . . .  | 7½   | 2300    | 2300   |
| "   | "                         | Julesburg. . . . .             | { 1 Single Circuit, Single-phase<br>Feeder. . . . .  | 5½   | 2300    | 2300   |



# GENERAL ELECTRIC

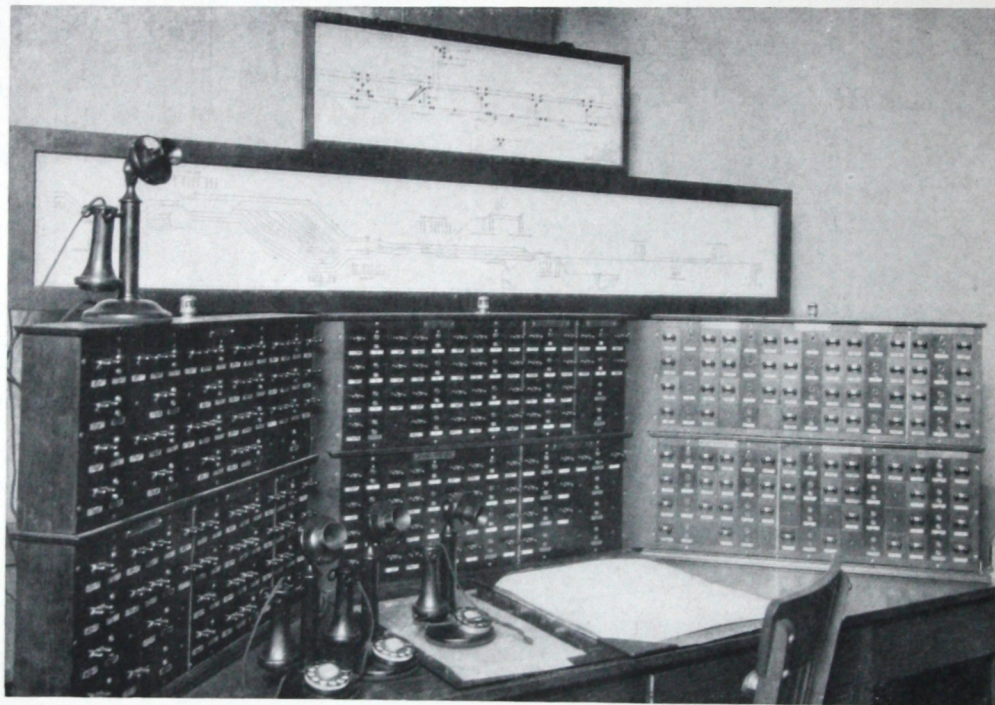
## SUPERVISORY EQUIPMENTS

There are three types of supervisory equipments in general use today: Distributor, Selector, and Cable.

The distributor type is used for power systems consisting of several stations controlled by a centralized load dispatcher, and where each station contains a large number of units. It is possible to have complete control and indication of as many as fifty units over four line wires between the stations.

The selector type is particularly applicable to power systems consisting of several outlying stations remote from the operator and containing but few units per station.

The cable system is used where there are very few units to be controlled and it is more economical to use separate control wires to each unit, rather than the selector or distributor type of control.



Selector Supervisory Equipment—Dispatcher's Key and Lamp Cabinets  
Illinois Central R.R., Randolph St. Station

| Company                                 | Address              | Station          | Apparatus   |
|---|----------------------|------------------|---|
| Alabama Power Co.....                   | Birmingham, Ala..... |                  | Cable   |
| “                                       | Huntsville, Ala..... |                  | Cable   |
| Alpena Power Co.....                    | Alpena, Mich.....    | Norway.....      | Selector, control and indication                    |
| Anglo Chilean Consolidated Nitrate Cor. | Chile, S. A.....     |                  |   |
| Boston Elevated R.R. Co.....            | Boston, Mass.....    |                  | Distributor   |
| Chicago, Aurora & Elgin R.R.....        | Aurora, Ill.....     | Warrenville..... | Selector, control, and indication                   |
| “                                       | “                    | Bellwood.....    | Selector, control, and indication                   |
| “                                       | “                    | Wheaton.....     | Selector, control, and indication                   |
| Chicago, N. S. & Milwaukee R.R.....     | Highwood, Ill.....   |                  | Selector, control, and indication<br>(6 equipments) |



# AUTOMATIC STATIONS

| Company  | Address               | Station            | Apparatus                            |
|--|-----------------------|--------------------|--------------------------------------|
| Chicago Rapid Transit Co.                                  | Chicago, Ill.         | Central Ave.       | Selector, control, and indication    |
| "  | "                     | East Prairie       | Selector, control, and indication    |
| "  | "                     | Miles Center       | Selector, control, and indication    |
| Chicago S.S. and South Bend R.R.                           | Hammond, Ind.         |                    | Selector and carrier current         |
| Cia Mineira De Electricidade                               | De Fora, Brazil       |                    | Selector                             |
| City of Boston   | Boston, Mass.         |                    | Distributor                          |
| City of Norwich  | Norwich, Conn.        |                    | Cable                                |
| Cleveland Electric Illuminating Co.                        | Cleveland, Ohio       | Clinton            | Distributor and telemetering         |
| Connecticut Power Co.                                      | New London, Conn.     | Cromwell           | Cable, control, and indication       |
| Duquesne Light & Power Co.                                 | Pittsburgh, Pa.       | Conway             | Selector, indication only.           |
| Edison Electric Ill. Co.                                   | Boston, Mass.         | Hopkinton & Medway | Selector, control and indication     |
| Florida Power and Light Co.                                | Miami, Fla.           |                    | Cable                                |
| "  | "                     | Miami Rwy.         | Cable                                |
| Hartford Electric Light Co.                                | Hartford, Conn.       |                    | Distributor, control, and indication |
| "  | "                     |                    | Distributor                          |
| Havana Elec. Rwy., Lt. & Pr. Co.                           | Havana, Cuba          |                    | Selector                             |
| Illinois Central R. R. Co.                                 | Chicago, Ill.         | Burnside Shops     | Selector                             |
| Illinois Pr. & Lt. Corp.                                   | Granite City, Ill.    | Sulphur Siding     | Cable                                |
| "  | Peoria, Ill.          |                    | Cable                                |
| Kansas City Power & Light Co.                              | Kansas City, Mo.      | A.                 | Distributor, indication only         |
| "  | "                     | C.                 | Distributor, indication only         |
| "  | "                     | E.                 | Distributor, indication only         |
| "  | "                     | M.                 | Distributor, indication only         |
| "  | "                     | R.                 | Distributor, indication only         |
| "  | "                     | T.                 | Distributor, indication only         |
| "  | "                     | U.                 | Distributor, indication only         |
| "  | "                     | V.                 | Distributor, indication only         |
| "  | "                     | W.                 | Distributor, indication only         |
| "  | "                     |                    | Distributor                          |
| Louisville Gas & Electric Co.                              | Louisville, Ky.       |                    | Cable                                |
| Louisville Hydroelectric Co.                               | "                     | Shipping Port.     | Cable                                |
| Malden Electric Co.  | Malden, Mass.         | Medford            | Distributor, control, and indication |
| "  | "                     | Melrose            | Distributor, control, and indication |
| "  | "                     | Everett            | Distributor, control, and indication |
| "  | "                     |                    | Cable                                |
| Minnesota Power & Light Co.                                | Riverton, Minn.       | Riverton           | Cable, control and indication        |
| "  | "                     |                    | Cable                                |
| Narragansett Electric Light Co.                            | Providence, R. I.     | Elmwood            | Cable, control, and indication       |
| New York Edison Co.  | New York              | Waterside          | Distributor, indication only         |
| "  | "                     | Hell Gate          | Distributor, indication only         |
| "  | "                     | Sherman Creek      | Distributor, indication only         |
| "  | "                     | East 41st St.      | Distributor, control, and indication |
| "  | "                     | East River         | Distributor, indication only         |
| N. Y., N. H. & H. R. R. Co.                                | New Haven, Conn.      |                    | Cable                                |
| Northern Indiana Public Service Co.                        | Hammond, Ind.         |                    | Selector                             |
| Northern States Power Co.                                  | Minneapolis, Minn.    |                    | Selector, control only               |
| Northwestern P. & L. Co. for Wash-<br>ton Pulp & Paper Co. | Port Angeles, Wash.   |                    | Selector                             |
| Pacific Gas & Electric Co.                                 | San Francisco, Calif. | Station H.         | Distributor                          |
| "  | "                     | Station E.         | Distributor, control, and indication |
| "  | "                     | Station L.         | Distributor, control, and indication |
| "  | "                     |                    | Selector                             |
| "  | "                     |                    | Selector                             |
| Pinellas County Power Company                              | St. Petersburg, Fla.  |                    | Distributor and synchronizing        |
| Potomac Edison Co.   | Hagerstown, Md.       | Maple Ave.         | Selector, control and indication     |
| Public Service Co. of Northern Ill.                        | Chicago, Ill.         | No. 88             | Selector                             |
| "  | "                     | Wheaton            | Selector                             |
| Public Ser. Elec. & Gas Co.                                | Newark, N. J.         | Athenia            | Distributor                          |
| "  | "                     | Miller St.         | Distributor, control and indication  |

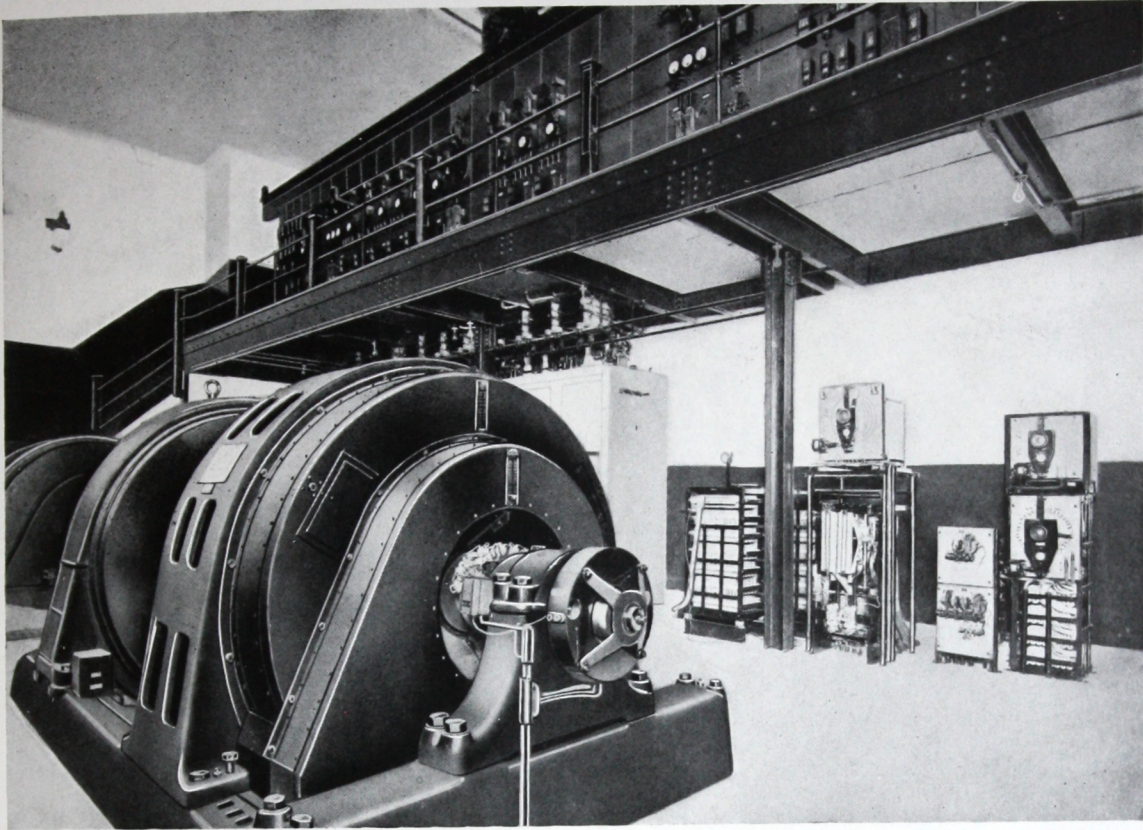


# GENERAL ELECTRIC

| Company                                   | Address            | Station                        | Apparatus                            |
|---|--------------------|--------------------------------|--------------------------------------|
| Public Ser. Elec. & Gas Co.               | Newark, N. J.      | Norfolk St.                    | Distributor, control and indication  |
| "   | "                  | Terminal Bldg.                 | Distributor, control and indication  |
| "   | "                  | So. Patterson                  | Distributor, indication only         |
| "   | "                  | Essex                          | Distributor                          |
| "   | "                  | Kearney                        | Distributor, indication only         |
| "   | "                  | Marion                         | Distributor, indication only         |
| "   | "                  | Orange                         | Distributor, indication only         |
| "   | "                  | Central Ave.                   | Distributor, indication only         |
| "   | "                  | City Dock                      | Distributor, indication only         |
| "   | "                  | Coal St.                       | Distributor, indication only         |
| "   | "                  | Elizabeth                      | Distributor, indication only         |
| "   | "                  | Bayway                         | Distributor, indication only         |
| "   | "                  | Harrison                       | Distributor, indication only         |
| "   | "                  | Waverlay                       | Distributor, indication only         |
| "   | "                  | Irvington                      | Distributor, indication only         |
| "   | "                  | Washington Ave.                | Distributor, indication only         |
| "   | "                  | Clay St.                       | Distributor, control and indication  |
| "   | "                  | Race St.                       | Distributor, control and indication  |
| "   | "                  | Bloomfield                     | Distributor, control and indication  |
| "   | "                  | Montclair                      | Distributor, control and indication  |
| "   | "                  | Plank Rd.                      | Cable                                |
| "   | "                  | Federal Ship                   | Cable                                |
| "   | "                  | Submarine Boat                 | Cable                                |
| "   | "                  | Crucible Steel                 | Cable                                |
| San Diego Consolidated Gas & Elec. Co.    | San Diego, Cal.    |                                | Distributor                          |
| State Electricity Commission of Aust'l'a. | Melbourne          | Sugar Loaf                     | Selector and cable                   |
| "   | "                  | Rubicon                        | Selector and cable                   |
| Texas Interurban Railway Co.              | Dallas, Texas      | Dallas-Denton Line             | Selector, control and indication     |
| The Detroit Edison Co.                    | Detroit, Mich.     | Brownstone                     | Distribution, control and indication |
| The Milwaukee Elec. Rwy. & Lt. Co.        | Appleton, Wis.     |                                | Cable, control and indication        |
| United Electric Light Co.                 | Springfield, Mass. | East Springfield Station No. 5 | Selector, control and indication     |
| United Electric Light Co.                 | Armory, Mass.      |                                | Selector                             |
| United Electric Ry. Co.                   | Providence, R. I.  | Cox Lane                       | Selector, control and indication     |
| Utica Gas & Electric Co.                  | Utica, N. Y.       | East Utica                     | Selector, control and indication     |
| "   | "                  |                                | Selector                             |
| Wairarapa Electric Power Board            | New Zealand        | Equrarau                       | Selector, control and indication     |



## AUTOMATIC STATIONS



Miller Street Station of the Public Service Electric and Gas Co., Showing Two 600-volt, 1500-kw. Motor-generator Sets, Load Limiting Equipment and Automatic Control



College Ave. Substation of the Chicago, North Shore & Milwaukee R.R. Equipped with One 600-volt, 500-kw. Synchronous Converter with Automatic Control



# GENERAL ELECTRIC COMPANY

GENERAL OFFICE: SCHENECTADY, N. Y.

SALES OFFICES (Address nearest Office)

|                         |                             |                           |                              |
|-------------------------|-----------------------------|---------------------------|------------------------------|
| Akron, Ohio.....        | 159 South Main Street       | Memphis, Tenn.....        | 130 Madison Avenue           |
| Atlanta, Ga.....        | 123 Spring Street           | Miami, Fla.....           | 25 Southeast Second Street   |
| Baltimore, Md.....      | 39 West Lexington Street    | Milwaukee, Wis.....       | 425 East Water Street        |
| Birmingham, Ala.....    | 602 North Eighteenth Street | Minneapolis, Minn.....    | 107 Fifth Street, South      |
| Bluefield, W. Va.....   | 104 Federal Street          | Nashville, Tenn.....      | 234 Third Avenue, North      |
| Boston, Mass.....       | 84 State Street             | Newark, N. J.....         | 20 Washington Place          |
| Bu. Ialo, N. Y.....     | 39 East Genesee Street      | New Haven, Conn.....      | 129 Church Street            |
| Butte, Mont.....        | 40 East Broadway            | New Orleans, La.....      | 837 Gravier Street           |
| Canton, Ohio.....       | 700 Tuscarawas Street, West | New York, N. Y.....       | 120 Broadway                 |
| Charleston, W. Va.....  | 201 Capitol Street          | Niagara Falls, N. Y.....  | 201 Falls Street             |
| Charlotte, N. C.....    | 200 South Tryon Street      | Oklahoma City, Okla.....  | 15 North Robinson Street     |
| Chattanooga, Tenn.....  | 536 Market Street           | Omaha, Neb.....           | 409 South Seventeenth Street |
| Chicago, Ill.....       | 230 South Clark Street      | Philadelphia, Pa.....     | 1321 Walnut Street           |
| Cincinnati, Ohio.....   | 215 West Third Street       | Phoenix, Ariz.....        | 11 West Jefferson Street     |
| Cleveland, Ohio.....    | 925 Euclid Avenue           | Pittsburgh, Pa.....       | 535 Smithfield Street        |
| Columbus, Ohio.....     | 17 South High Street        | Portland, Ore.....        | 329 Alder Street             |
| Dallas, Tex.....        | 1801 North Lamar Street     | Providence, R. I.....     | 76 Westminster Street        |
| Davenport, Iowa.....    | 111 East Third Street       | Richmond, Va.....         | 700 East Franklin Street     |
| Dayton, Ohio.....       | 25 North Main Street        | Rochester, N. Y.....      | 89 East Avenue               |
| Denver, Colo.....       | 650 Seventeenth Street      | St. Louis, Mo.....        | 112 North Fourth Street      |
| Des Moines, Iowa.....   | 418 West Sixth Avenue       | Salt Lake City, Utah..... | 200 South Main Street        |
| Detroit, Mich.....      | 700 Antoinette Street       | San Antonio, Tex.....     | 601 Navarro Street           |
| Duluth, Minn.....       | 14 West Superior Street     | San Francisco, Cal.....   | 116 New Montgomery Street    |
| Elmira, N. Y.....       | 342 East Water Street       | Schenectady, N. Y.....    | 1 River Road                 |
| El Paso, Tex.....       | 109 North Oregon Street     | Seattle, Wash.....        | 811 First Avenue             |
| Erie, Pa.....           | 10 East Twelfth Street      | Spokane, Wash.....        | 423 Riverside Avenue         |
| Fort Wayne, Ind.....    | 1635 Broadway               | Springfield, Mass.....    | 1387 Main Street             |
| Grand Rapids, Mich..... | 201 Monroe Avenue           | Syracuse, N. Y.....       | 113 South Salina Street      |
| Hartford, Conn.....     | 18 Asylum Street            | Tacoma, Wash.....         | 950 Pacific Avenue           |
| Houston, Tex.....       | 1016 Walker Avenue          | Tampa, Fla.....           | 112 Cass Street              |
| Indianapolis, Ind.....  | 106 North Illinois Street   | Terre Haute, Ind.....     | 701 Wabash Avenue            |
| Jackson, Mich.....      | 212 Michigan Ave., West     | Toledo, Ohio.....         | 520 Madison Avenue           |
| Jacksonville, Fla.....  | 11 East Forsyth Street      | Tulsa, Okla.....          | 409 South Boston Street      |
| Kansas City, Mo.....    | 1004 Baltimore Avenue       | Utica, N. Y.....          | 239 Genesee Street           |
| Knoxville, Tenn.....    | 602 South Gay Street        | Washington, D. C.....     | 1405 G Street, Northwest     |
| Little Rock, Ark.....   | 223 West Second Street      | Waterbury, Conn.....      | 195 Grand Street             |
| Los Angeles, Cal.....   | 5201 Santa Fe Avenue        | Worcester, Mass.....      | 340 Main Street              |
| Louisville, Ky.....     | 455 South Fourth Street     | Youngstown, Ohio.....     | 16 Central Square            |

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Hawaii: W. A. Ramsay, Ltd., Honolulu.

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## SERVICE SHOPS

|                  |                            |                     |                              |
|------------------|----------------------------|---------------------|------------------------------|
| Atlanta.....     | 91 Glenn Street            | Los Angeles.....    | 5203 Santa Fe Avenue         |
| Bu. Ialo.....    | 318 Urban Street           | Minneapolis.....    | 410 Third Ave., North        |
| Chicago.....     | 509 East Illinois Street   | New York.....       | 627 Greenwich Street         |
| Cincinnati.....  | 215 West Third Street      | Philadelphia.....   | 1223 Washington Avenue       |
| Cleveland.....   | 1133 East 152nd Street     | St. Louis.....      | 1009 Spruce Street           |
| Dallas.....      | 1801 North Lamar Street    | Salt Lake City..... | 370 West Second South Street |
| Detroit.....     | 700 Antoinette Street      | Seattle.....        | 1508 Fourth Ave. South       |
| Kansas City..... | 819 East Nineteenth Street |                     |                              |

Special service divisions are also maintained at the following works of the Company: Bloomfield, N. J.; Erie, Pa.; Ft. Wayne, Ind.; Oakland, Calif.; Pittsfield, Mass.; Schenectady, N. Y.; and West Lynn, Mass.—River Works and West Lynn Works.

## BROADCASTING STATIONS

WGY, Schenectady, N. Y. KOA, Denver, Colo. KGO, Oakland, Calif.

Distributors for the General Electric Company outside of the United States and Canada

## INTERNATIONAL GENERAL ELECTRIC COMPANY, INC.

New York City, 120 Broadway

General Sales Offices, Schenectady, N. Y.

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ARGENTINA: General Electric, S. A., Buenos Aires, Cordoba, Rosario de Santa Fé, and Tucuman  
 AUSTRALIA: Australian General Electric Company, Ltd., Sydney, Melbourne, Adelaide, Brisbane, and Newcastle  
 BELGIUM AND COLONIES: Societe d'Electricite et de Mecanique (Procedes Thomson-Houston & Carcel)  
 Societe Anonyme, Brussels, Belgium  
 BRAZIL: General Electric, S. A., Rio de Janeiro, and Sao Paulo  
 CENTRAL AMERICA: International General Electric Co., Inc., New Orleans, La.  
 CHILE: International Machinery Company, Santiago, Antofagasta and Valparaiso; Nitrate Agencies, Ltd., Iquique  
 CHINA: Andersen, Meyer & Company, Ltd., Shanghai; China General Edison Company, Shanghai  
 COLOMBIA: Wesselhoef & Poor, Bogota, Barranquilla, and Medellin  
 CUBA: General Electric Company of Cuba, Havana, and Santiago de Cuba  
 DUTCH EAST INDIES: International General Electric Company, Inc., Soerabaya, Java  
 ECUADOR: Guayaquil Agencies Co., Guayaquil  
 EGYPT: British Thomson-Houston Company, Ltd., Cairo  
 FRANCE AND COLONIES: Compagnie Francaise Thomson-Houston, Paris; International General Electric Co., Inc., Paris  
 GERMANY: International General Electric Co., Inc., Berlin  
 GREAT BRITAIN AND IRELAND: International General Electric Co., Inc., British Thomson-Houston Co., Ltd., London, W.C.2;  
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 GREECE AND COLONIES: Compagnie Francaise Thomson-Houston, Paris, France  
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